050
U58

v.111

THE UNIVERSAL MAGAZINE OF KNOWLEDGE AND PLEASURE,

FOR JULY, 1802.

REFLECTIONS *on the* WAR, *and on the* ADVANTAGES *of* PEACE.

ILLUSTRATED BY AN ELEGANT FRONTISPIECE.

As when ſweet Venus (ſo the fable ſings)
Awak'd by Nereids, from the Ocean ſprings;
With ſmiles, ſhe ſees the threat'ning billows riſe,
Spreads ſmooth the ſurge, and clears the low'ring ſkies:—
Amid the world of waves, ſo ſtands ſerene
BRITANNIA'S iſle, the Ocean's ſtately queen;
In vain the Nations have conſpir'd her fall—
Her trench, the ſea—and fleets, her floating wall.———
Fearleſs, our MERCHANT now purſues his gain,
And roams ſecurely o'er the boundleſs main.———
Our VICTORS, bleſs'd in peace, forget their wars,
Enjoy paſt dangers, and abſolve the ſtars.
But, Oh! what ſorrows ſhall bedew your urns,
Ye honour'd ſhades, whom widow'd Albion mourns! TICKELL.

THERE is, perhaps, no province of human exertion in which the powers of genius have been more ſignally diſplayed than in the enterprizes of war, and the arts of deſtruction. We admire the wiſdom of ancient legiſlators, the enthuſiaſm of the poets of old, almoſt equal to the praiſe of inſpiration, the artifices, or venerable ſanctity of prieſts, who impoſed the firſt ties of religion on the ſavage ferocity of mankind. But to ſee the energies both of thought and action, the powers of daring and of endurance, ſtrained to the utmoſt, and tranſcending whatever man could promiſe to others, or to his own heart of himſelf, we muſt turn to an Alexander penetrating to the Indus, to a Ceſar conquering at Pharſalia, or fighting leſs for victory than for life in the plains of Munda; to a Beliſarius and a Narſes, reſtoring the Roman Empire in the Weſt, or to an Attila, deſcending as the ſcourge of God upon the Roman World. None of theſe, nor any name among

30861

the heroes, whether of ancient or of modern times, deſerves more eminently than an Abercrombie, a Howe, a Jarvis, a Duncan, and a Nelſon, the nobleſt eulogies of eloquence, and the moſt illuſtrious and unperiſhing honours, which can be conferred by the willing tribute of all the Fine Arts. Not Alexander nor Ceſar encountered in the conqueſt of Egypt difficulties greater than thoſe over which the Britiſh forces triumphed in that glorious, though fatal day, on which Abercrombie was wounded to death. What hero of any other nation ever crowned the ſervices and honours of a long life, by an atchievement more memorable than that in which it was the fortune of Howe to cruſh the ſtrength of the republican navy of France, in the famous engagement of the firſt of June? To have broken the naval ſtrength of Spain, by ſkill and vigilance of tactics, no leſs than by heroic ardour in fight, is the praiſe of St. Vincent's.—To diſappoint the hoſtile intents of the Dutch, and to ſhatter their beſt naval power, was the glorious fortune of the Britiſh fleet under Duncan. Aboukir—Copenhagen—are names which now ſuggeſt nothing ſo much as the vigilant and ſelf-collected, yet ardent, impetuous, reſiſtleſs, triumphant intrepidity of Nelſon!—While the *Palm-tree* ſhall flouriſh—while the *Pyramid* ſhall deride the injuries of time—while the floods of the Nile ſhall water the Delta with plenty—the atchievements of a Britiſh army, and a Britiſh fleet, ſhall be remembered in Egypt, as tranſcending whatever the fields or coaſts of that celebrated land have witneſſed, even ſince it received the firſt germs of that humanity, ſcience, and civilization, which were, from it, to be propagated over the whole weſtern world.

There is, in the idea of our country, a character of maternal benignity, of virgin honour, of majeſtic beauty, of feminine grace, which has, with juſt propriety, taught our ſculptors, painters, orators, and poets, to perſonify Britain as a female deity. The ſame was, in regard to other countries, the practice of the poets, medalliſts, and artiſts of antiquity. There is, indeed, a ſentiment in the very nature of man, which has ſuggeſted the ſame ſort of perſonification among almoſt all nations, ancient or modern, barbarous or civilized. And never was there yet a time when imagination could, with propriety, repreſent to itſelf the ideal form of *Britannia*, either more auguſt or beautiful in perſonal aſpect, or inveſted with attributes of greater majeſty, benignity, and triumph, or ſhowing herſelf to admiration in ſcenes more intereſting, than muſt become thoſe performances of the arts of deſign, in which we at this time aſpire to introduce the living repreſentation of our country. We can, happily, figure her to ourſelves, calm, collected, firm, benignant; ſmiling over a ſcene which the ſtorms of war have juſt ceaſed to ruffle and deface; wearing in her aſpect an expreſſion of conſcious joy in the victories ſhe has atchieved, in the faith with which ſhe has acquitted herſelf toward her allies, in the humanity with which ſhe has ſpared the vanquiſhed; in the moderation with which ſhe avoided to puſh triumph to its laſt arrogance; in the ſalvation which ſhe has wrought for civil order, for religion, for every permanent art or inſtitution which adorns and bleſſes ſociety, not in Europe only, but throughout the world; regarding, with a ſorrow almoſt extinguiſhed in conſcious pride, the memory, the names, the monuments of her illuſtrious ſons, who have fallen to defend her honour, to perpetuate her glory, to ſend her Peace, which ſhould be led in by the right hand of Victory; viewing with ſatisfaction thoſe naval means of defence, which are the pledges of the permanency of that ſtate of which ſhe is the Genius; revolving deſigns of gracious beneficence to be diſpenſed, in conſtantly augmented abundance to her people; and mingling with her other joys that of the proſpect of a continual in-

provement in theſe iſles of every virtue, of every ſcience, and of every uſeful and ornamental art. Plenty, now, more perhaps, than ever, ſmiles before her. The lights of glory, benignity, and ſublime intelligence, ſtill beam from her eyes.

Even war could not blaſt the proſperity of our commerce. But in peace, that cannot fail to be exceedingly advanced. The relations of trade were too various, complex, and important, to be fully adjuſted between France and this country, by the ſame acts which put an end to the war. While theſe ſhall remain unſettled between the two nations, their commercial intercourſe may be ſubject, on both ſides, to reſtraints and embarraſſments, of which the removal is devoutly to be wiſhed. A commercial treaty can ſcarce fail, however to be, in due time, mutually concluded between France and Britain: and the conſequences will be of courſe beneficial, in the higheſt degree, to the manufactures and trade of both countries. It has been proved, by ſome of the moſt eminent writers in commercial philoſophy, that the jealouſy of trade, when it riſes to ſuch a pitch as to make neighbouring nations reſtleſsly buſy to thwart each other's ſucceſs, even in thoſe branches of induſtry, which are reſpectively, ſuitable to the circumſtances of each, is, of all national ſentiments, the moſt fooliſh and pernicious. We will therefore, hope, that in an age ſo enlightened as the preſent, this jealouſy cannot long prevail between Britain and France, but muſt give place to a perception of the advantage there is to every ſtate in having its neighbours and cuſtomers in trade as rich and flouriſhing as poſſible, and to a diſcernment that Britain and France may the moſt effectually ſtrengthen themſelves againſt each other, by cultivating their reſpective natural advantages for trade and induſtry, not by neglecting each its own advantages, in order to graſp, with vain envy, at thoſe which peculiarly belong to the other. We ſhould, at the ſame time hope, that from the generous emulation of the natives of the two countries, may proceed diſcoveries in ſcience, inventions in the arts of utility, maſterpieces of genius in the Fine Arts, which ſhall ſurpaſs whatever the world has hitherto ſeen in any of thoſe modes of the exerciſe of human talents.

It is pleaſing, at ſuch a time as this, to reflect, that in all countries, and in all ages, but eſpecially in this, the ſeaſon of the greateſt improvement in the arts of induſtry and peace has been that which immediately enſued after the utmoſt violence of war. Athens, and all Greece, firſt began to riſe to preeminence in the arts of civilization, immediately after they had repulſed the Perſian invaſion. It was after the long conteſt between Athens and Lacedæmon, that the Grecian Drama roſe in the former of theſe cities, to its moſt conſummate excellence. Grecian philoſophy was not improved to its higheſt perfection by the diſciples of Socrates, till the ſtruggles for the preſervation of the liberties of Greece, againſt Philip and Alexander, had been finally ſubdued. Rome became enlightened, poliſhed, and elegantly induſtrious, after the deſtruction of Carthage, after the conqueſt of Greece and Aſia, after the civil wars had ended in eſtabliſhing the ſupreme power of Auguſtus. In France, the arts of peace began to flouriſh after the power of the Engliſh had been expelled from the northweſt provinces of that kingdom; after the feudal principalities had been reduced to implicit ſubjection by Lewis the eleventh; after the civil wars had, at length, terminated under Henry the fourth; after the wars of Richelieu and of Mazarine, and the turbulence of the minority of Lewis the fourteenth had ended in the peace with Spain, and in the authority which he perſonally exerciſed ſoon after he came of age;

after the wars of Lewis the fourteenth, and the diſorders of the Regency had ended in the pacific adminiſtration of Fleury; after the peace of 1763; and in the period between 1783 and 1788. The era of tranquillity, after the expulſion of the Danes by Alfred; the tranſient pauſes from war, which occurred in the reign of Edward the third; the termination of the civil wars between the partizans of the houſes of York and Lancaſter, in the acceſſion of Henry the ſeventh; the pacific reign of James the firſt, ſucceeding the glorious wars of that of Eliſabeth; the years of peace which followed immediately after the reſtoration; the termination of the troubles of the revolution, in the reign of queen Anne; the cloſe of war, and the final annihilation of the hopes of rebellion, in the beginning of the reign of our preſent king: and the period which ſucceeded upon the cloſe of the American war; are the times, at which our hiſtory records the moſt remarkable improvements to have been made in all the arts of peace in theſe iſles. What is ſo univerſal in the hiſtory of nations, may be expected again to take place on an occaſion ſo ſimilar to thoſe, on which it has always returned before. The energies which have been our glory and defence in war, cannot but be our felicity, by a ſuitable change of their direction in peace. Capital, which was employed abroad, and in the ſervice of the war, will be brought home, and laid out in beautifying our towns and manors, in bringing our marſhes and moors from barrenneſs and deformity, under cultivation; in cutting new canals, in conſtructing new bridges, in eſtabliſhing new manufactures, and in bringing the whole population of theſe iſles into the ſame advantages of union and correſpondence, as if they were all inhabitants of one great city.

We enjoy a ſingular advantage in the correſpondence between the nature of our foreign trade and the military defence of the empire. Sailors in merchant-ſhips, in time of peace, want little or nothing to equal the diſcipline, the intrepidity, and all the military virtues of thoſe who man the royal navy in war. Our maritime trade actually maintains for us, even in time of peace, without public expence to the nation, a great ſtanding naval force, which can be, at any time, even in the ſpace of a few months, called to fight, as if they were veteran warriors in the nation's cauſe. But huſbandmen and manufacturers can never be ſo ſpeedily and effectually trained to ſervice as land ſoldiers. A national militia, or even the beſt troops of the line, become in peace comparatively imperfect in diſcipline, and leſs manly in valour. Sailors, alone, remain as hardy and intrepid in peace as in war. No nation, that does not employ ſo many ſeamen as Britain does, in mercantile navigation, can have, in peace, ſuch a force as we poſſeſs, ready, at all times, for defence againſt hoſtilities. In the probable increaſe, therefore, of our maritime commerce, we contemplate with joy the growing ſecurity of our empire.

HINTS RESPECTING WILLS.

[By Dr. LETTSOM.]

THE inſtinct of other animals for the protection of their young is equalled, if not exceeded, by the affection of man for his offſpring. The wants of the one are few, and the power of gratifying them is ſoon acquired; but thoſe connected with humanity are continually varying and augmenting; hence the ſuperintending care of age and experience ſcarcely terminates with life itſelf. Man, who with labour and ſolicitude acquires a property, naturally deſires to perpetuate it to his family and relatives. What he

thus creates, he poſſeſſes a right, and feels a propenſity, to diſpoſe of among them; and this the law empowers him to do, under certain regulations, by will. Conſidering the anxiety and labour with which property is acquired, and the total uncertainty of human life; it is to me a ſubject of wonder, that any man ſhould ſuffer one hour to elapſe of uncertain time, without this ſecurity to his wiſhes. Sometimes indeed various embarraſſments, and the unſettled ſtate of family concerns, may induce individuals to poſtpone making a will; but no ſtate can be ſo unſettled, as to afford a juſt plea againſt making that, which, when once made, throws, as it were, a clearer light on the aſpect of affairs, and enables the individual to alter or modify many circumſtances conducive to future peace of mind.

There are ſome ſo inconſiderate as to imagine, that by making a will they really ſhorten their own lives. Happily, however, common reflection muſt render this opinion not very general. Indeed, I am perſuaded, from long and repeated obſervation, that ſo far from ſhortening, the ſatisfaction of having made a will, prolongs life.

Many diſeaſes of the human body depend greatly upon mental ſolicitude, and few things contribute more forcibly to alleviate ſolicitude than this ſecurity in the diſpoſal of property. This is particularly verified when perſons are attacked with ſickneſs without having made a will. It tends to aggravate diſeaſe, and renders them much more difficult to cure; inſomuch that the uneaſineſs and perplexity of mind occaſioned thereby, frequently bring on delirium early in the diſeaſe, or that agitation of intellect, as ſcarcely admits of a capacity to make a will at all. How often have I ſeen a weeping wife, and many an amiable daughter, plunged into the deepeſt diſtreſs, by this neglect of an affectionate huſband and father, who has inconſiderately put off the making of a will day after day, till, alas! the bewildered faculties render it too late to perform this act of juſtice to his family; and which often occaſions ſubſequent legal and expenſive deciſions, that ruin at leaſt many an amiable daughter; for the laws of primogeniture are calculated to entail miſery on the helpleſs female ſex.

In ſome inſtances I have known, that the diſeaſe has been ſo moderate, and the underſtanding ſo clear, as to admit of the making a will on a ſick bed; but when the patient has recovered, I have ſcarcely known an inſtance wherein he has not condemned the diſpoſition of a will made in the hurry of agitated ſpirits, with a mind weakened by diſeaſe, and influenced by the urgency of the occaſion, and the preſſure of ſurrounding objects. At the beſt, what a ſcene of melancholy reflection is preſented, at an awful period, when the mind ought to detach itſelf as much as poſſible from pecuniary calculations!—How many inſtances daily occur of ſudden deaths, from diſeaſe and from accidents, and from which none are exempt;—inſtances in which there is ſcarcely a moment between exiſtence and non-exiſtence; between life and death!

In civilized ſociety, where relations and connexions are multiplied, it requires much compoſure and calm reflection to diſpoſe of property by will, to the perfect ſatisfaction of the individual, even in health; but how impracticable then muſt it be for a perſon on a bed of ſickneſs, with doubts of futurity preſſing on intellect, to arrange his worldly concerns! Independent of this, I have found by experience, that the diſeaſes of perſons who have previouſly ſettled their important concerns, are much more eaſily cured; and thus in reality, that making a will while in health, really conduces to prolong life.

Under theſe views, deduced from long obſervation, I ſincerely wiſh that every perſon who regards his individual health and happineſs, and the ſuccour and comfort of ſurvivors, would not protract the ſettlement of

his affairs by will, a ſingle day of an uncertain exiſtence.

I would here have ſuggeſted, that it ſhould be one of the earlieſt inquiries of the attendant practitioner, 'If the patient has made a will;' but unfortunately any queſtion propoſed by a phyſician on the ſubject, alarms the patient, who is apt haſtily to rejoin, 'What, doctor, do you think I am going to die?' and afterward, too often, gives himſelf up to deſpair of recovery. In ſome inſtances, when health has been reſtored, the patients have told me, that ſigning their wills conveyed a terror as if they were ſigning their own death-warrants. The ſame alarm will not be excited by the ſame cautious and prudent interference of an intimate acquaintance, whoſe inquiries may be received rather as the reſult of friendly ſolicitude, than of ſuſpicion of danger; while thoſe of the phyſician, who is ſuppoſed to foreſee the event, muſt impreſs the mind of a debilitated frame, with a dread of the moſt imminent hazard of life.

This is a further argument in favour of making a will in the ſeaſon of health; and ſo it appeared to the ſociety of quakers, who, a few years ago, expreſsly formed a minute of recommendation to each individual of the ſociety capable of it, not to poſtpone making a will, while in health of body, and ſoundneſs of mind.

May I preſume here to recommend it, as a ſubject worthy of being occaſionally introduced from the pulpit, throughout the kingdom; for it cannot be indecorous to inculcate, in places deſtined to the worſhip of a ſupremely juſt Being, an act of moral juſtice to every family in civilized ſociety?

THE GLEANER.

NUMBER XLIII.

For ever exercis'd, yet never tir'd. POPE.

LITERATURE has, ſurely, no ſmall merit in having tried ſo many artifices to give a charm to inſtruction. Every form, every incident, every ſituation in nature or life, which moſt powerfully wins and fixes attention, has been marked and imitated with happy fiction for the purpoſe of engaging the mind not to ſhun the inſinuation of truth. Invention of this ſort has at laſt been, in ſome manner exhauſted. All the elegant fictions of wit and fancy have been tried, and tried again, as vehicles of moral inſtruction, till their power to engage is, by frequency of uſe, at an end. And when, by diſguiſing a medicine, you can only render its bitterneſs more naufeous, it were better, ſurely, to adminiſter it, even in its ſimple and natural form.

Of all thoſe fictions, I believe there are none more contemptibly ſtale than pretended dreams, or viſions. There was a general and myſterious reverence of real dreams, highly favourable to the power of the fictitious, which, to the great diſadvantage of the latter, philoſophy has gradually diſpelled. While dreams were thought to come, for ſome beneficent purpoſe, from the immediate inſpiration of heaven, every conſiſtent allegory under that name was naturally heard or read with favour. There was alſo, in the notion of a dream, ſomething ſo ſublime, ſo wild, and breaking ſo ſtrangely out of all the common forms of human things, that the imitation of a dream, by waking invention, gave a ſcope to the energies of fancy, with which their vigour ſeemed to increaſe. And ſome of the fineſt flights of human imagination have been actually made in fictions of this ſpecies. But as every one would, at times, dream in reality; ſo it became natural to almoſt every one to conceive, that he had a right to deal out pretended dreams. Of all the efforts of fancy, the fiction of

dreams, though perhaps the moſt difficult to be performed in a maſterly way, ſeemed, to thoſe who were, from ſhallowneſs and inexperience, bold, to be the eaſieſt. Hence, in no other form, was ever the imitation of genius more abuſed by frivolity and dullneſs.

On theſe conſiderations, it is not without great heſitation that I have reſolved to lay before my readers the ſubſtance of a dream, which really preſented itſelf to my mind a few evenings ſince, and of which I happened to be able to recollect almoſt the whole train after I awoke. It may ſeem to have in it a conſiſtency quite incompatible with the diſorder of real dreams; and yet a want of allegorical import, with which no one would take the pains to invent a fictitious one. Yet there is, in fact, in the dreams of many perſons, at times, a conſiſtency much greater than I in this inſtance experienced. I remember, that an old phyſician, with whom I was intimate in the country, uſed often to tell me of dreaming, that he was reading the parliamentary debates in the newſpapers, or diſcuſſing, in good-natured controverſy, with his friends, ſome topic of philoſophical diſquiſition. And he would even repeat the ſubſtance of what he had, in thoſe dreams, fancied himſelf to read or advance in argument; which, to one's great ſurpriſe, was not only rational and conſecutive, but eloquent and cogently argumentative, even above whatever the good man was accuſtomed to utter in his ordinary waking diſcourſe. It was in the time of the American war, when Fox and Burke were the two popular orators in parliament, of whom every perſon was eſpecially ſolicitous to know what they in any debate ſaid. And, by what felicity I know not, my old friend would, when a particular debate was previouſly expected, frequently dream for his two favourite ſpeakers, arguments and modes of perſuaſion entirely ſuitable to their reſpective characters, and as we afterward learned, approaching wonderfully near in their tenor to what Fox and Burke had actually uttered.

I had paſſed the earlier part of the evening in converſe with ſome friends at a coffeehouſe. An incident mentioned in a newſpaper, and caſually pointed out by one of the company to the particular notice of the reſt, led the diſcourſe upon the inequalities of human fortune, the miſeries of life, the vexations and toils of buſineſs to which the greater part of men are condemned, and the little benefit in real happineſs which thoſe perſons have from the gifts of fortune, who are favoured with them the moſt abundantly. One gentleman ſpoke with earneſtneſs and feeling, which intereſted and affected us, of the hardſhip of the caſe of a man ſpending all his beſt years in buſineſs, in the acquiſition of independent fortune, which, when he ſhould have gained it, old habits would render him unable to enjoy in the retirement for which he ſighed. Another declared, upon the ſame ground, that thoſe indeed who were from birth the favourites of fortune, might abuſe their advantages to their own ruin, yet for any but the favourites of fortune to hope for any tolerable portion of happineſs in this world, was the weakeſt deluſion of ignorance and folly. We became weary of a converſation ſo full of deſpondency. The company broke up; and I returned to my chamber and went to bed.

When the mind is in a ſort of quiet feeble melancholy, without anxious, agitating ſorrow, it ſinks eaſily with the body to repoſe, at the accuſtomed hours. Preciſely to this ſtate had my thoughts been reduced by the diſcourſe I have mentioned. I fell almoſt immediately aſleep. And the miſeries of the induſtrious, and the ſuperior chances of felicity, which thoſe had who were born to fortune, were the laſt things of which I thought, as ſleep interrupted my conſciouſneſs of reflection.

How long I had ſlept I know not,

when my mind became again ſenſibly active. A being ſeemed ſuddenly to ſtand before me, that wore the aſpect and guiſe of a departed friend, to whoſe counſels in regard to the conduct of life I had been wont to liſten with profound reſpect. There was, however, in his whole appearance, an air of dignity and intelligence, more than human, which hindered me from actually recognizing the viſion, at the moment, as that of an ancient acquaintance, though the awe which I ſhould otherwiſe have felt in his preſence was thus diminiſhed, and I felt a confidence in his kindneſs, which could ſcarcely have been otherwiſe inſpired. 'Ariſe,' ſaid he, 'follow me: I will take you to ſee the houſe and fields of Induſtry; and we will afterward viſit the Palace and Gardens of Fortune.'

I obeyed, methought, with ready cheerfulneſs. He took me by the hand. We were inſtantaneouſly tranſported, as it ſeemed, to a ſtation on the ſide of a vaſt mountain, which ſlowly roſe to a great height above us. On its ſummit we could clearly perceive a ſpacious and noble edifice. Its ſides were varied with every diverſity of wood and bare ſurface, of rock, green turf, and bog. Several ſprings burſt out at different heights on its ſides, and deſcended in copious ſtreams. Its baſe expanded gradually into a wide plain, the further verge of which was at a great diſtance bounded by the ocean. From the remote verge of the plain, to the very ſummit of the mountain, I could ſee an innumerable multitude of human beings, of both ſexes and of all ages, who appeared to arrive continually from the ocean upon the ſhore, and thence to direct their ſteps, as if with an eager intention to aſcend to the edifice which crowned the diſtant height. 'Behold,' ſaid my conductor, pointing to the ſides of the mountain and the plain, 'behold the fields of Induſtry! After you ſhall have ſurveyed them, we will viſit his houſe above.'

I felt, by what ſupernatural influence I knew not, my powers of ſight to be ſo enlivened, that from the ſummit of the mountain to the very brink of the ſea ſhore, I could, without quitting the ſtation on which I was firſt placed, diſcern every object, however minute, and every movement on the ſcene.

'Who are theſe,' ſaid I, with ſome diffidence, to my guide, who appear to arrive, from time to time, from the ocean upon the ſhore?' 'They are men entering the ſcenes of mortal exiſtence.'

'They run, crawl, or recline, for a time on the brink, I perceive, without taking their way onward, in the direction to the mountain?' 'They know not yet where they are: they are ſcarce conſcious of the powers which they poſſeſs; reaſon and deſire are not yet ſufficiently awake within them to prompt them to take their way forward.' 'With what reluctance,' ſaid I, 'and indifference, they firſt begin to turn their ſteps hither!' 'They are driven,' replied the monitor, who ſtood beſide me, 'by Diſcipline, whom you may diſcover behind them, with a ſcourge in her hand: they are led on in chains by Neceſſity, whom you may alſo perceive at her poſt: but Hope has not yet held out her diſtant lights to entice them onwards; nor has Deſire for them yet enlarged the range of her viſion beyond the ſpots where they reſpectively ſtand, and where ſhe looks with giddy eye, now behind, now to one ſide, now to the other, and graſps ſtill at objects which Diſcipline and Neceſſity compel them to abandon.'

I continued to purſue, with my eye, the progreſs of thoſe whom I had thus ſeen to enter upon their march. They had to open and clear the path by their own labour, as they came on. But the ſcourge of Diſcipline was applied, as it ſeemed, with tenderneſs; and ſuch was its effect, that new energies appeared to my obſervation to be continually communicated by its touch. Neceſſity herſelf, though more ſevere, though ſhe would not ſuffer

the youth to break away from her chain, yet with an aſſiſtance, of which he ſeemed not to be conſcious, performed more than half the toil of clearing the way before him. Deſire began to fix her eye on the hand of Neceſſity, and to accept with eagerneſs thoſe flowers and gems which ſhe taught the youth to gather from amid his footſteps. And the golden lights of Hope, breaking from a cloud which half veiled the mountain's top, began to gleam faintly on the eyes of the pilgrim.

I gazed, delighted, on this part of the ſcene. I had fingled out for obſervation juſt one individual of the crowd. But when I raiſed my eyes from whence he opened for himſelf a path, I could ſee a countleſs multitude explore every one his reſpective path, under the ſame guidance. They came on with various degrees of alacrity. Some trembled and winced under the galling laſh of Diſcipline. Some ſank down fainting, under the conſtraining graſp and heavy chains of Neceſſity. Some, in the giddineſs to which they were betrayed by young Deſire, ſtruggled to burſt from the track to which they were confined, and ran to roam over the plain, without conſtraint. Far the greater number, however, proved unable to make any conſiderable efforts againſt the power of thoſe to whoſe implicit guidance they had been by nature ſubjected.

'Now, mark their nearer approach,' ſaid my conductor.

I looked ſtill on thoſe who had engaged my firſt attention. Where they advanced, in willing obedience to the chain of Neceſſity, and to the ſcourge of Diſcipline, theſe appeared to deal by them with continually more and more gentleneſs. By Diſcipline, the pilgrims were, as it ſeemed, wonderfully invigorated: Neceſſity had taught them a thouſand new arts by which to lighten and relax her chain. The lights of Hope became ſtill ſtronger and more cheering. Deſire, chaſtened and illuminated, fixed its viſion ſteadily on the objects immediately before it, in the path, and by the lights of Hope, began to raiſe its views at times to the ſummit of the mountain. In clearing the path before him, the traveller found continually a more plentiful ſupply of ſuch things as might comfort laſſitude and gratify deſire.

Still, however, I could perceive ſome ſink under Neceſſity; and ſome, as the conſtraints of Neceſſity and Diſcipline were ſomewhat relaxed, to break away from the path, under the miſguidance of impotent Deſire. Theſe broke athwart the progreſs of thoſe who were advancing in paths parallel to theirs. But they were ſoon again griped by the fang of Neceſſity; and under her ſtrong conſtraint, and under the ſcourge of Puniſhment, (the companion and elder ſiſter of Diſcipline) much more ſtern and cruel than ſhe, they for the moſt part periſhed.

But of thoſe who went on in the path in which they were led by Neceſſity, without attempting to deſert it, the fate was much more favourable. Neceſſity and Diſcipline were joined, as they carried forward their charges, by a third perſon, of an aſpect of meekneſs and dignity exceeding any thing which I had ever before ſeen. 'That noble form on which you fix your eye with looks of curioſity and veneration,' ſaid my companion, 'is Wiſdom! He comes to undertake the care of thoſe whom Neceſſity and Diſcipline have gradually tutored to be worthy of his counſels.' I perceived, that Neceſſity henceforth ſo relaxed her chain, that its conſtraint was no longer felt; and that Diſcipline entirely ceaſed to menace with her ſcourge. Theſe two beings appeared to reſign their charge entirely to Wiſdom; yet ſtill continued themſelves in attendance, on purpoſe, as I ſuppoſed, to renew their coercions, if Deſire ſhould attempt to withdraw the traveller from under the mild authority of Wiſdom. Of thoſe who were thus committed to Wiſdom's care, ſome flung wildly away,

and conſequently periſhed; others, happily for themſelves, were ſeaſonably replaced under the reſtraints of Neceſſity and Diſcipline. The greater part proceeded, with alacrity, clearing away with eaſe thoſe obſtacles which they found in their reſpective path; preſſing eagerly, under the direction of Wiſdom, up the mountain's ſides; leading, as it ſeemed, Neceſſity and Diſcipline as humble friends in their train; holding Deſire in ſuch attachment to Wiſdom, that its eyes only followed whither his hand pointed. From his very path, as he advanced, the traveller appeared to gather numberleſs things which he could recognize, as having been before ſhown to his view by the lights of Hope, and having caught the eye of Deſire. As he advanced up the mountain, the light of Hope now ſhone upon him, ſtrong, clear, and ſteady, with a luſtre overcoming that of the ſun, yet amid its ſtrength not ſuch as to dazzle the ſight.

As I looked, I could perceive ſome of the pilgrims to be attended by little dwarfiſh beings, of ſtout, though contracted make, and of careful, but not unpleaſing looks, who bore each a baſket, into which he ſeemed eagerly to gather up the gems, gold, and flowers, which the traveller cleared away from his path. 'Who are theſe,' ſaid I to my conductor. 'Theſe,' replied he, 'are the Genii of Frugality, the ſervants of Induſtry. It is their taſk to gather and ſtore in his treaſures every object of value, which is now culled by theſe travellers from his fields.'

'Let us now aſcend the mountain,' ſaid my guide, after a ſhort pauſe. Before I could reply, we ſtood at the gate of the houſe of Induſtry, on the mountain's top.

We entered. The genius of the place firſt attracted my notice. He walked, in an immenſe hall; and ſeemed to comprehend with one glance of his eye whatever was paſſing within it. His form was tall, juſtly proportioned, and vigorous; yet his movements were light, eaſy, and graceful, as thoſe of ſome fairy child. His countenance was manly, and wore in it an expreſſion of gravity and activity, ſoftened by the tenderneſs of humanity. His attention was apparently divided between the gracious reception of thoſe who entered from the hill, the apt diſpoſal of every thing within the hall, and the ſuperintendence of the labours of thoſe who were, in different parts of it, buſy at their reſpective taſks. From time to time he caſt his eyes on the fields below, which from the front of the hall he could eaſily ſurvey.

We walked round the hall. It contained, in the moſt beautiful and convenient arrangement, an immenſe abundance of every valuable production of nature or of art. Thoſe who had toiled up the hill, were here engaged, according to the habits of action and deſire which they had acquired by clearing their reſpective paths, in arranging the ſtores which were continually brought in by the Genii of Frugality, or in diſtributing them out for uſe at the command of Induſtry, who, as my conductor now told me, was likewiſe known by the appellation of Beneficence. Some were buſy in arranging and diſtributing the production of nature: ſome were equally employed with the productions of thoſe which we call the Mechanic Arts: ſome were buſy with the works of the Fine Arts: and ſome were employed, as it appeared, in the purſuits of Philoſophy, and in the exerciſes of Religion: of ſome, the cares ſeemed to be enlarged to a reſemblance of thoſe of the genius of the place himſelf. All ſeemed equally happy, though not in equal honour. I aſked my conductor why ſome were content with employments ſo mean, as appeared entirely to engage them. He replied, that 'thoſe were perſons whoſe views, though they came ſteadily on under the guidance of Neceſſity and Diſcipline; Deſire, Hope, and Wiſdom, had not been able to enlarge beyond the objects which they could

graſp, in clearing the path before them, and who happened to march in a path in which none were to be found but groſs and ſimple objects. They advanced ſteadily; and they have, accordingly, arrived in the houſe of Induſtry. But thoſe avocations in which they are to find their felicity here, can be only ſuch as are compatible with the habits of deſire, intelligence, and ſenſibility, which they have previouſly acquired'

We paſſed onward to where the roof of the hall roſe aloft, ſo as to form a ſpacious and magnificent dome. The dome opened to the ſky; and was overhung with a radiant cloud, out of which ſweet, yet ſolemn and awful muſic, was heard to breathe. I looked; and three heavenly forms deſcending from the cloud touched and took by the hand certain of the perſons who, having ended their taſks in the hall, advanced with joy in their countenances to meet the heavenly ſtrangers. 'Theſe divine forms,' ſaid my conductor, 'are Faith, Hope, and Charity. With them, behold the Children of Induſtry aſcend to meet the laſt and higheſt felicity to which they are deſtined!' I gazed awhile, with ſolemn delight, on the glories of this ſcene; then turned away with awful reverence.

One thing which greatly ſurpriſed me, was to obſerve, that though the Genii of Frugality were bringing continual additions to the ſtores in the hall of Induſtry, and though the quantity conſumed out of thoſe ſtores was ſo much ſmaller than the additions, yet the ſtores remained without any apparent increaſe of bulk. My conductor eaſily perceived my ſurpriſe, and its cauſe. 'Let us now,' ſaid he, 'proceed to the Palace and the Gardens of Fortune!'

He had ſcarce ſpoken, when we ſtood without the edifice, and on the ſide of the mountain, oppoſite to that which I had contemplated before. I now diſcerned at once, what it was that diminiſhed the ſtores of the Hall of Induſtry. They were acceſſible from without: and a number of beings, whoſe forms were ſmall, but careleſs and jovial, were continually purloining thoſe ſtores in baſkets, and conveying them toward an edifice, which ſtood at ſome diſtance on a plain below. 'Theſe beings,' ſaid my companion, 'purloin the ſtores of Induſtry, in order to ſupply with them the wild waſte of Fortune.'—We deſcended to the Palace. In it, I ſaw a female on a throne. Her face wore a look of mingled gayety, benignity, and folly. She deſcended from her ſeat; and we followed, with her attendants, into the gardens. I could there obſerve beings arrive, as before, from the ocean, on the ſhore of exiſtence. As Neceſſity approached with her chain, and Diſcipline with her ſcourge, Fortune eagerly reſcued the young pilgrims; bade them rove at large under the conduct of blind Deſire; removed every thorn from before them; and poured around them with laviſh hand thoſe bounties with which ſhe was ſupplied by theft from the ſtores of Induſtry. It was evident, that ſhe meant only to make them happy, while ſhe invited them to roam at pleaſure over her gardens, and when weary of theſe, to enter her palace. I looked; and they were all hurried about by impotent Deſire, till Fortune's bounties could no longer avail them. They were overtaken by Neceſſity and Puniſhment, under whoſe firſt graſp many of them periſhed. Others were conveyed by theſe tormentors into the gate of a gloomy manſion, which ſtood on the confines between the Fields of Induſtry and the Gardens of Fortune. All the gardens, however decorated with a boundleſs profuſion of natural and artificial beauties, were deformed with ſcenes of miſery, and filled with inceſſant wailings. The wretched minions of Fortune, when they felt themſelves in the gripe of Neceſſity, and under the ſcourge of Diſcipline, uttered loud execrations againſt her by whoſe blandiſhments they had been betrayed. She pitied their fate, re-

gretted her inability to reſcue them, and haſtened away, to laviſh on others her baneful favours. While I was continuing my obſervations, I looked round to put a queſtion to my guide—He was gone. And I, then, in my ſleep recollected that his form and features were thoſe of my old friend, who was now no more. In the alarm and confuſion, I ſuddenly awoke. It was day. And the beams of the morning ſun had begun to enter my window. E.

CHARACTER OF SUVARROF.

[From Secret Memoirs of the Court of Peterſburg, vol. III.]

AT the time of Catharine's deceaſe, Suvarrof, at the height of favour and fame, was at the head of a powerful army, which occupied all the ſouth of Poland, and extended to the ſhores of the Euxine. Paul had never been partial to this bigoted, reſtleſs, volunteering, enterpriſing general, who was an enthuſiaſtic admirer of Catharine, and her gigantic projects. On his part, Suvarrof, a Ruſſian in the full import of the term, and conſequently an enemy to that minute and pedantic German diſcipline with which his future emperor was ſo infatuated, had never cultivated his good graces. The corps which he commanded, ſo far from being remarkable for exact order and rigorous preciſion in the uſe of their arms, were almoſt always at the extreme borders of the empire, employed in fighting, and diſtinguiſhed themſelves only by that ſort of diſorder which characteriſes the ſoldier in the time of war. Paul, however, was afraid of this popular general, who was beloved by the troops; but he at firſt kept terms with him, and confirmed him in all his commands; he afterward ſent him orders to eſtabliſh the army on another footing, and to carry into execution the new military regulations. Suvarrof, who was attached to the old Ruſſian inſtitutions, and even to thoſe of Potemkin, well adapted to the national character, with which he was perfectly acquainted; Suvarrof, perſuaded that the troops, which had ever been victorious, could not but be on a very good footing, was not eager to conform to the orders of the emperor, and indulged himſelf in pleaſantry when he received them. This was wounding to the quick Paul I, who gloried in reforming and improving, in his way, his military eſtabliſhment, and diſcourſed about the button of a gaiter, and the queue of a ſoldier, as of things the moſt important to the glory of his arms. He immediately ſent orders to the old general to reſign the command, and to quit the army without delay. The Ruſſian ſoldier, who, like the French, is a ſongſter, had already turned into a ſong the bon mots of Suvarrof, which contributed not a little to throw ridicule on the new regulations.

We have ſaid above, that Suvarrof was a barbarian and a buffoon, but he was, perhaps, the fitteſt general for the genius of the Ruſſians; the ſoldier loved him, and the officer, though he regarded him as a burleſque character, fought under his orders with confidence. If Paul, in diſmiſſing him, had conſidered only his natural cruelty, or his folly, real or affected, perhaps the meaſure would have been applauded; but he appeared to aim at puniſhing the man devoted to his mother, and the thwarter of his military innovations, which were too abrupt and too ill directed. When old Suvarrof received the order to reſign his command, he choſe to communicate it himſelf to his army, which he drew up in order of battle. In front of the line roſe a pyramid of drums and cymbals. Dreſſed as a ſimple grenadier, but decorated with all his orders, with the portrait of the empreſs and that of Joſeph II, Suvarrof harangued his companions in arms, and bade them a very pathetic farewell. He then ſtripped himſelf of his helmet, his coat, his ſaſh, his muſket, and all the marks of effective ſervice, which

he depoſited on the pyramid, in the form of a trophy: 'Comrades,' ſays he, 'there will come a time, perhaps, when Suvarrof will reappear among you; he will then reſume theſe ſpoils which he leaves to you, and which he always wore in his victories.' The ſoldiers were moved with indignation and grief; they murmured and lamented. Suvarrof quitted them in this manner, leaving the command to his lieutenant-general.

He retired to a ſmall houſe, which he had at Moſco; but a man ſo famous and ſo popular, whoſe diſmiſſion, after ſuch ſignal ſervices, cauſed a general ſenſation in the empire, gave umbrage to Paul in that capital where he was going to be crowned, and he iſſued an order for Suvarrof to be ſent away from Moſco. A major of the police entered one day into the retreat of the old warrior, and preſented to him this order, which baniſhed him to an obſcure village. With an air ſomewhat indifferent, Suvarrof aſked how much time was granted him for ſettling his affairs? 'Four hours,' replied the officer. 'Oh, this is being overkind!' exclaimed the general; 'an hour is ſufficient for Suvarrof.' He immediately put his gold and his jewels into a caſket, and went out. A travelling coach was waiting for him at the door. 'Suvarrof going into exile,' ſaid he, 'has no need of a coach; he can repair thither in the ſame equipage that he made uſe of to repair to the court of Catharine, or to the head of the armies—Bring me a cart!' His will muſt be obeyed, and the officer was forced to perform with the old field-marſhal a route of 500 verſts in a *kibitka:* in ſummer, this carriage is the moſt inconvenient that can be imagined; but Suvarrof was accuſtomed to it, travelling only in this manner, laid on a mattreſs, and wrapped up in his cloak. Having arrived at the village appointed, he took up his quarters in a wooden hut, under the ſuperintendance of the major and ſome ſubaltern officers of the police. No one durſt ſee him or write to him; and the veteran, habituated to the tumult of camps, and to a life the moſt active and buſtling, ſaw himſelf all at once completely inſulated. Reading, and the reflections which he had time to make during this diſgrace, had no ſmall influence on the remainder of his life. At laſt his daughter, married to a brother of the favourite Zubof, was permitted to pay him a viſit, which was ſhort, but at which count Suvarrof ſeemed affected. The emperor, on his return to the reſidence, appeared alſo to relent by degrees, and wrote to him. A courier arrived, and delivered his diſpatch; on the cover was, in large letters.—To field-marſhal Suvarrof. 'This letter is not for me,' ſaid the old warrior coolly, on reading the direction; 'If Suvarrof were field-marſhal, he would not be baniſhed and guarded in a village; he would be ſeen at the head of the armies.' The courier, ſtupified, in vain ſaid and repeated, that he had orders to deliver this letter to his excellency. However he was forced to carry it back ſealed to the emperor. On receiving it Paul manifeſted no vexation; but Suvarrof from that time was guarded more ſtrictly. Thus it is that a celebrated man, confident in his fame and the public opinion, can ſometimes brave a deſpot.

Suvarrof was afterward placed at the head of the Ruſſian army acting againſt the French. At the battle of Zurick, in which he was engaged, the army, exhauſted by hunger, fatigue, and a thouſand privations, contemplated with deſpair thoſe ſummits covered with ſnow, which it was ſtill neceſſary to reach. The ſoldiers murmured, ſtopped, and refuſed to go further. Suvarrof cauſed a grave to be dug in the road, and laid himſelf in it: 'Cover me with earth,' ſaid he, 'and here leave your general: you are no longer my children; I am no longer your father; I have nothing more to do than die!' Whereupon his grenadiers haſtened round him, requeſting with loud cries that they might ſcale the ſummits of St. Gothard, and thence diſlodge the French.

ANECDOTES *of* CATHARINE II, *late Empreſs of* RUSSIA.

[From the SAME.]

ONE day Catharine was told that her buſt, in Parian marble, carefully preſerved in a cryſtal glaſs in one of the apartments of the Hermitage, had juſt been found painted. Great endeavours were made to irritate her againſt this inſolence, and to cauſe its authors to be ſought after in order to puniſh them ſeverely for this inſult to her imperial majeſty. Catharine II, without appearing either incenſed or ſurpriſed, contented herſelf with ſaying, 'It is, probably, one of the pages, who wanted to rally me on the habit I have of wearing rouge. The only thing to be done is to waſh my buſt.'

The empreſs had harboured and adopted a little boy, whom the police had found abandoned in the ſtreets: ſhe ſent him daily to take leſſons at the German ſchool. One day the child appeared on his return leſs gay than uſual. Catharine took him on her knees, and aſked him the cauſe of his grief. 'Ah, mamma, ſaid he, 'I have cried ſadly; our maſter at the ſchool is dead; his wife and children cry a great deal; every one is dreſſed in black, and they ſay that this woman and her children are extremely unfortunate, becauſe they are very poor, and have nobody to give them a bit of dinner.' The empreſs immediately ſent an aid-de-camp to the director of the ſchool to enquire into the matter, and on learning that a teacher had juſt died, leaving his wife and children in the greateſt diſtreſs, ſhe ſent inſtantly by the little boy three hundred rubles to the widow, with an order to the head maſter to have the three orphan children brought up at the expence of the crown. Here we ſee the heart of Catharine: thus it was that innocence ſometimes brought her the complaints of ſuffering humanity, and that ſhe haſtened to afford it ſuccour.

It is well known that an artificial cold may be produced by the mixture of ſnow and ſalt of nitre; a heat, and even an artificial fire, may likewiſe be obtained by the mixture of ſpirit of nitre and oil of turpentine: thoſe two ſubſtances take fire as ſoon as they are mixed, as well as ſeveral others, by a chymical proceſs ſufficiently known. Some years ago a fire broke out on board a frigate in the harbour of Cronſtadt, and had like to have burnt the veſſel. Inquiries were made to diſcover the cauſe of this unfortunate accident, which was attributed to ſome ill diſpoſed perſon. Several ſailors even were apprehended on ſuſpicion, and endeavours were employed in vain to make them confeſs the crime. The empreſs, being informed of this affair, ſaid to the reporter, 'But, ſir, it ſeems to me that I have learnt in my youth, that the mixture of ſome cold ſubſtances produces fire ſpontaneouſly: perhaps this fire has been occaſioned by an unlucky accident, and it would be a ſad thing to have the innocent puniſhed.' She appointed a commiſſion to examine the frigate, and ſeek out the cauſes of the fire. Kraft, the profeſſor of experimental phyſics and chymiſtry to the young grand dukes, was of this commiſſion; and it was diſcovered that the fire had proceeded from a bottle of oil, which had been thrown down on a heap of ſoot in the corner of the chimney. This was at leaſt what was conjectured, and what was reported to the empreſs, who ordered the parties accuſed to be ſet at liberty. She was fond of recollecting this adventure, and related it one day to the young grand dukes, who were ſpeaking to her of their leſſons in phyſics, in order to make them comprehend how uſeful that ſcience might be to them.

On the QUANTITY *of* MOISTURE ABSORBED *from the Atmosphere by different* SUBSTANCES *used for* CLOTHING.

[From 'Philosophical Papers, &c. By Count Rumford, LL.D. F.R.S.']

BEING engaged in a course of experiments upon the conducting powers of various bodies with respect to heat, and particularly of such substances as are commonly made use of for clothing, in order to see if I could discover any relation between the conducting powers of those substances and their power of absorbing moisture from the atmosphere, I made the following experiments:

Having provided a quantity of each of the undermentioned substances in a state of the most perfect cleanness and purity, I exposed them, spread out upon clean china plates, twenty-four hours, in the dry air of a very warm room (which had been heated every day for several months, by a German stove) the last six hours of the heat being kept up to 85° of Farenheit's thermometer; after which I entered the room with a very accurate balance, and weighed equal quantities of these various substances, as expressed in the following table.

This being done, and each substance being equally spread out upon a very clean china plate, they were removed into a very large uninhabited room, upon the second floor, where they were exposed forty-eight hours upon a table placed in the middle of the room, the air of the room being at the temperature of 45° F.; after which they were carefully weighed (in the room) and were found to weigh as undermentioned.

They were then removed into a very damp cellar, and placed upon a table, in the middle of a vault, where the air, which appeared by the hygrometer to be completely saturated with moisture, was at the temperature of 45° F.; and in this situation they were suffered to remain three days and three nights, the vault being hung round, during all this time, with wet linen clothes, to render the air as damp as possible, and the door of the vault being shut.

At the end of three days I entered the vault, with the balance, and weighed the various substances upon the spot, when they were found to weigh as is expressed in the third column of the following table:

The various Substances.	Weight after being dried 24 hours in a hot room.	Weight after being exposed 48 hours in a cold uninhabited room.	Weight after being exposed 72 hours in a damp cellar.
	Parts.	Parts.	Parts.
Sheep's wool	1000	1084	1163
Beaver's fur	1000	1072	1125
The fur of a Russian hare	1000	1065	1115
Eider down	1000	1067	1112
Silk. Raw single thread	1000	1057	1107
Silk. Ravelings of white taffety	1000	1054	1103
Linen. Fine lint	1000	1046	1102
Linen. Ravelings of fine linen	1000	1044	1082
Cotton wool	1000	1043	1089
Silver wire, very fine, gilt, and flatted, being the ravelings of gold lace	1000	1000	1000

N. B. The weight made use of in these experiments was that of Cologne, the *parts*, or least divisions, being $\frac{1}{8333}$ part of a mark, consequently 1000 of these *parts* make about [illegible] *grains troy*.

I did not add the ſilver wire to the bodies abovementioned, from any idea that that ſubſtance could poſſibly imbibe moiſture from the atmoſphere; but I was willing to ſee whether a metal placed in air ſaturated with water, is not capable of receiving a ſmall addition of weight from the moiſture attracted by it, and attached to its ſurface; from the reſult of this experiment, however, it ſhould ſeem that no ſuch attraction ſubſiſts between the metal I made uſe of and the watery vapour diſſolved in air.

I was totally miſtaken in my conjectures relative to the reſults of the experiments with the other ſubſtances. As linen is known to attract water with ſo much avidity; and as, on the contrary, wool, hair, feathers, and other like animal ſubſtances, are made wet with ſo much difficulty, I had little doubt but that linen would be found to attract moiſture from the atmoſphere with much greater force than any of thoſe ſubſtances; and that, under ſimilar circumſtances, it would be found to contain much more water; and I was much confirmed in this opinion upon recollecting the great difference in the apparent dampneſs of linen and of woollen clothes, when they are both expoſed to the ſame atmoſphere. But theſe experiments have convinced me, that all my ſpeculations were founded upon erroneous principles.

It ſhould ſeem, that thoſe bodies which are the moſt eaſily wetted, or which receive water, in its unelaſtic form, with the greateſt eaſe, are not thoſe which in all caſes attract the watery vapour diſſolved in the air with the greateſt force.

Perhaps the apparent dampneſs of linen, to the touch, ariſes more from the eaſe with which that ſubſtance parts with the water it contains, than from the quantity of water it actually holds; in the ſame manner as a body appears hot to the touch, in conſequence of its parting freely with its heat, while another body, which is actually at the ſame temperature, but which withholds its heat with greater obſtinacy, affects the ſenſe of feeling much leſs violently.

It is well known that woollen clothes, ſuch as flannels, &c. worn next the ſkin, greatly promote inſenſible perſpiration. May not this ariſe principally from the ſtrong attraction which ſubſiſts between wool and the watery vapour which is continually iſſuing from the human body? That it does not depend entirely upon the warmth of that covering, is evident; for the ſame degree of warmth, produced by wearing more clothing of a different kind, does not produce the ſame effect.

The perſpiration of the human body being abſorbed by a covering of flannel, it is immediately diſtributed through the whole thickneſs of that ſubſtance, and by that means expoſed by a very large ſurface, to be carried off by the atmoſphere; and the loſs of this watery vapour, which the flannel ſuſtains on the one ſide by evaporation, being immediately reſtored from the other, in conſequence of the ſtrong attraction between the flannel and this vapour, the pores of the ſkin are diſencumbered, and they are continually ſurrounded by a dry, warm, and ſalubrious atmoſphere.

I am aſtoniſhed that the cuſtom of wearing flannel next the ſkin ſhould not have prevailed more univerſally. I am confident it would prevent a multitude of diſeaſes; and I know of no greater luxury than the comfortable ſenſation which ariſes from wearing it, eſpecially after one is a little accuſtomed to it.

It is a miſtaken notion, that it is too warm a clothing for ſummer. I have worn it in the hotteſt climates, and in all ſeaſons of the year, and never found the leaſt inconvenience from it. It is the warm bath of a perſpiration confined by a linen ſhirt, wet with ſweat, which renders the ſummer heats of the tropical climates ſo inſupportable; but flannel promotes perſpiration, and favours its evaporation; and evaporation, as is well known, produces poſitive cold.

I firſt began to wear flannel, not

from any knowledge which I had of its properties, but merely upon the recommendation of a very able phyſician (ſir Richard Jebb); and when I began the experiments, of which I have here given an account, I little thought of diſcovering the phyſical cauſe of the good effects which I had experienced from it; nor had I the moſt diſtant idea of mentioning the circumſtance. I ſhall be happy, however, if what I have ſaid or done upon the ſubject ſhould induce others to make a trial of what I have ſo long experienced with the greateſt advantage, and which I am confident they will find to contribute greatly to health, and conſequently to all the other comforts and enjoyments of life.

I ſhall then think theſe experiments, triffing as they may appear, by far the moſt fortunate, and the moſt important ones I have ever made.

ACCOUNT OF THE ROYAL INSTITUTION OF GREAT BRITAIN.

AT a meeting of the managers and viſitors of the Royal Inſtitution of Great Britain, held at the houſe of the Inſtitution, on the 26th day of April 1802, the following report, relative to the preſent ſtate of the Inſtitution, was laid before them by count Rumford.

On the 25th of May laſt year I had the honour to lay before the managers an account, which by their directions was publiſhed in the journals of the Inſtitution on the 13th of June, reſpecting the progreſs that had been made in the arrangement of the Inſtitution at that time, and of the works that were then going on at the houſe of the Inſtitution; and I ſhall now briefly ſtate to the managers and viſitors what has ſince been accompliſhed, and what ſtill remains to be done to complete this great and intereſting eſtabliſhment in all its details.

The new lecture room has been finiſhed, and is acknowledged to be one of the moſt beautiful and moſt convenient ſcientific theatres in Europe. It is ſo favourable to the propagation of ſound, that though it is ſufficiently capacious to contain 900 perſons, a whiſper may be diſtinctly heard from one extremity of it to the other, and no echo is ever perceived in it on any occaſion. It is ſo contrived, that day-light may be entirely excluded in a moment, by lowering the moveable ceiling of the lantern, by which the light enters the room from above, and allowing it to reſt on the cornice which makes the finiſh of the lower part of the lantern, juſt above the level of the flat part of the ceiling of the room.

The form of the room is ſemicircular, with an addition of a parallelogram, equal in length to the diameter of the circular part of the room (ſixty feet) and fifteen feet wide; and there are eleven rows of ſeats riſing one above the other below, and three rows of ſeats in the gallery: and there is a covered circular paſſage, eight feet wide, all round the room, without, under the higher rows of ſeats, next the wall, and four convenient openings or *vomitoria*, with light doors with two wings, which ſhut of themſelves without noiſe, forming ſo many paſſages of communication between the lower part of the theatre or pit, and the arched gallery or paſſage without.

The floor and ſeats of this theatre are painted of a dark green colour; and the ſeats are all covered with green moreen cuſhions. The floor of the circular paſſage without, which ſurrounds the pit, and the ſtairs belonging to the *vomitoria*, are all covered with green cloth to prevent the noiſe of the footſteps from being heard of thoſe who come in or go out of the theatre during the lecture.

The windows which form the lantern (which is fifteen feet in diameter) are all double, which not only renders the temperature of the room very equal and pleaſant, but alſo prevents ſo ef-

fectually all noiſes from without diſturbing the ſilence which reigns in the room, that even the rumbling of the carriages which paſs in the neighbouring ſtreets is never heard in it.

This theatre is warmed in cold weather by ſteam, which coming in covered and concealed tubes, from the lower part of the houſe, circulates in a large ſemicircular copper tube, eight inches in diameter, and above ſixty feet long, which is concealed under the riſing ſeats of the pit.

Adjoining to this new theatre is the apparatus room, which communicates with it by a door which is on one ſide of the large open chimney fire-place within the theatre, and juſt behind the lecturer's table, which chimney fire-place ſerves for placing the furnaces that are occaſionally uſed in the chymical experiments.

The repoſitory, which is 44 feet long, and 33 feet wide (the ceiling of which, and the floor of the theatre, which is above it, being ſupported by two rows of handſome columns) is finiſhed, and already contains a conſiderable number of ſpecimens of new and uſeful mechanical contrivances.

The chymical laboratory, in which there is proviſion made for placing and uſing no leſs than ſixteen furnaces of different kinds at the ſame time, is quite finiſhed, and has been furniſhed, under the direction of the committee of chymiſtry (which has been formed ſince the laſt year) with a very complete chymical apparatus, and alſo with a conſiderable proviſion of materials neceſſary in making chymical experiments.

All the workſhops of the Inſtitution are now quite finiſhed; and they have been furniſhed with the moſt complete ſets of tools that could be procured; and ſeveral excellent workmen are now employed in them; and a great variety of uſeful articles, deſigned as models for imitation, have already been manufactured in the houſe, and are ready to be delivered to any of the proprietors or ſubſcribers to the Inſtitution who may be diſpoſed to purchaſe them.

The great kitchen at the houſe of the Inſtitution has been finiſhed, and now contains a variety of new and uſeful utenſils, and implements of cookery, many of which are in daily uſe, and others which are not are ſo expoſed to view as to be eaſily underſtood, and their merit appreciated.

The dining-room and the managers room, which is adjoining to it, have both been quite finiſhed and furniſhed.

The converſation-room has been finiſhed, and every thing has been prepared for its being uſed as a coffee-room. It is now ſet apart for the reading of the domeſtic newſpapers, of which no leſs a number than ten are regularly taken in; and it has been furniſhed with a ſet of the beſt geographical maps and charts that were to be procured. In ſelecting them, the advice and aſſiſtance of that able geographer major Rennel, were obtained. The maps are fitted up according to a new method, which has been found to be very convenient, and at the ſame time to contribute much to the economy of ſpace, and to the preſervation of the maps.

The firſt reading-room (that neareſt to the great hall) has lately been appropriated excluſively to the reading of foreign newſpapers. It is lighted up, as formerly, every evening; and on the table are found ſeven foreign gazettes, from different parts of the continent, in the French and German languages, which are regularly taken in, and which, coming by the poſt, conſtantly arrive at the earlieſt periods.

Mr. Stanhope, of the general poſt-office, has generouſly undertaken to manage the whole buſineſs of procuring theſe foreign newſpapers, and to cauſe them to be delivered at the houſe of the Inſtitution free of all expences for poſtage.

The ſecond, or principal reading-room, which is 26 feet long, by 24 wide, has been fitted up in a very complete and elegant manner, and furniſhed with neat book-caſes, which now extend round three ſides of the

room, affording ſpace for more than 3800 volumes. This arrangement has rendered it poſſible to allow the ſecond lecture-room (which at ſome future period is to become the library) to remain for ſome time longer in its preſent ſtate; and it will no doubt be found very uſeful for giving, occaſionally, lectures on particular ſubjects, unconnected with the general courſes of lectures that are regularly given in the great lecture-room by the profeſſors and lecturers of the Inſtitution. This ſecond lecture-room will likewiſe be found very convenient for the meetings of the committees of the Inſtitution, and for exhibiting new experiments to ſelect meetings of ſcientific men.

But to return to the principal reading-room. The accommodations for thoſe who frequent this room have been greatly augmented ſince the laſt year. There are now two long mahogany tables (each 11 feet in length, and three feet ten inches wide) covered with green cloth, which are placed parallel to each other, on oppoſite ſides of the room; and each of theſe tables is well lighted at night by an elegant Grecian lamp of three branches, ſuſpended by a chain from the ceiling of the room, and covered with a ſhade of white ſilk.

On theſe tables are found no leſs than 54 foreign and domeſtic, ſcientific and literary periodical publications, which are regularly taken in.

The books in the library of the Inſtitution have been conſiderably increaſed during the laſt year, both by preſents and by new purchaſes.

The principal reading-room has been ornamented by an elegant buſt of his majeſty, our moſt gracious ſovereign, patron of the Inſtitution; and by the buſts of thoſe great luminaries of ſcience, Bacon, and the immortal Newton.

With regard to the public opinion reſpecting the Inſtitution, I have the moſt ſenſible ſatisfaction in being able to lay before the managers and viſitors indiſputable proofs of its growing reputation. The reading-rooms and lectures at the houſe of the Inſtitution are conſiderably more frequented this year than they ever have been before; and, although the prices of proprietors' ſhares, and of life and annual ſubſcriptions, have been conſiderably raiſed, the liſt of proprietors and ſubſcribers have, during the laſt ten months, been augmented by no leſs than 154 new names, as will appear by the following ſtatement.

There were belonging to the Royal Inſtitution

	On June 5, 1801.	On April 26, 1802.	Augmentation.
Proprietors -	325	341	16
Life ſubſcribers -	268	284	16
Annual ſubſcribers	527	649	122
Total	1120	1274	154

The income and pecuniary reſources of the Inſtitution have, of courſe, kept pace with the increaſe of its proprietors and ſubſcribers; and its expences, though they have neceſſarily been very heavy, while ſo great and extenſive a plan has been carrying into execution, yet they have been regulated with ſo much order and economy, that the proprietors will, no doubt, be ſatisfied with the accounts that will be laid before them at their next annual meeting, which will be held in a few days.

It will ſtill be freſh in the recollection of the managers and viſitors, that, when, in the year 1800, it was finally determined by the proprietors to undertake the additional buildings at the houſe of the Inſtitution, it was then thought to be quite impoſſible to complete ſo great and expenſive an undertaking without a loan of at leaſt 5000l; and it will likewiſe be remembered that, on opening a ſubſcription for that purpoſe, no leſs a ſum than 7000l was generouſly offered, by a comparatively ſmall number of the proprietors, in a very ſhort time. It will alſo be recollected that I took the liberty in the report which I had the honour to lay before the managers laſt

year, on the 25th of May, to expreſs a hope that not only the expences of the new buildings above-mentioned, but of others alſo which were wanted, and of all the alterations and additions that would be neceſſary to be made to finiſh the houſe in the moſt complete manner, and to furniſh it elegantly, might, perhaps, with due care and attention, be defrayed without calling for any part of that ſum of 7000l; which had been ſubſcribed to enable the managers to complete this great undertaking.

I have now, in common with my two colleagues of the committee of expenditure (lord Pelham and Mr. Sulivan) who with myſelf have been ſpecially charged by the managers of the Inſtitution with the ſuperintendance and controul of theſe expences, the pleaſure to ſtate that theſe hopes have not been diſappointed.

By the accounts which have been laid before the viſitors it appears,

That the whole of the ſums that have from time to time become due to Mr. Hancock, who contracted with the managers for completing the new buildings, have been regularly paid. That his work having been finiſhed, and regularly examined by the ſurveyor of the Inſtitution, his accounts have been cloſed, and the balance due to him from the Inſtitution has been ſettled.

That the inſtalments agreed to be advanced to him, on his ſeparate contract for completing the attic ſtory, have likewiſe been regularly paid, and that no more than about 500l will be due to him, on his laſt contract, when he ſhall have completed the whole of that work; which will be finiſhed in a few weeks.

It appeared likewiſe, by theſe accounts, that all the carpenters, plumbers, painters, and glaziers bills, for extra work at the houſe of the Inſtitution—not included in Mr. Hancock's contracts—have been brought to account: that the ſalaries and wages of thoſe who conſtitute the eſtabliſhment of the Inſtitution have been regularly paid; and that all the tradeſmens bills have been duly checked, and regularly diſcharged.

And, laſtly, that all the ſums due from the Inſtitution on current accounts, including every demand that can be brought againſt the Inſtitution, even after all the new works now carrying on at the houſe of the Inſtitution ſhall have been completed, amounts to about 3900l; while the ſums belonging to the Inſtitution in the hands of their different bankers, added to thoſe ſums which are due to the Inſtitution from proprietors and ſubſcribers, and from ſome other perſons, amounts to about 8100l.

From this ſtatement it is evident that the Inſtitution has been completed without any debt being incurred; and, by an account which has been laid before the managers and viſitors, it appears that the preſent annual income of the Inſtitution is quite ſufficient to defray all the expences of keeping it. The Royal Inſtitution of Great Britain may therefore be conſidered as finiſhed and firmly eſtabliſhed. That it may long continue to flouriſh is, no doubt, the ardent wiſh of thoſe who are connected with it; and alſo of all thoſe who are acquainted with the principles on which it is founded, and who know how powerfully it muſt contribute to the general diffuſion of an active ſpirit of inquiry and uſeful improvement among all ranks of ſociety.

ANECDOTES *of the* HEROIC CONDUCT *of* FRENCH WOMEN.

[From 'Intereſting Anecdotes of the heroic Conduct of Women during the French Revolution, by M. du Broca.]

FILIAL AFFECTION.

DURING the war of La Vendee the duc de la Rochefoucault, condemned to die, as was alſo his daughter, found in the reſources of that affectionate girl the means of concealing himſelf till a period arrived more favourable to that juſtice which he ſuc-

ceſsfully claimed. His daughter's firſt care was to place him under the roof and protection of an artiſan, who had formerly been a domeſtic in the duke's ſervice, after which ſhe procured an aſylum for herſelf. They were thus both ſecure from the immediate power of their perſecutors; but as the duke's property was confiſcated, and as compaſſion is apt to grow weary of its good offices, the means of their bare ſubſiſtence were ſoon worn out. While the daughter was ſuffering under the extreme of poverty, ſhe learnt that her father's health was declining for want of due nouriſhment. She now ſaw no way but to devote her life to ſave her father's, and ſhe inſtantly made the reſolve.

A general of the republic at that very time was paſſing through the city in which was her place of concealment, and to him ſhe wrote the following letter:

'Citizen General,

'Wherever the voice of nature is heard, a daughter may be allowed to claim the compaſſion of men in behalf of her father. Condemned to death at the ſame time with him who gave me being, I have ſucceſsfully preſerved him from the ſword of the executioner, and have preſerved myſelf to watch over his ſafety. But in ſaving his life, I have not been able to furniſh all that is neceſſary to ſupport him. My unhappy father, whoſe entire property is confiſcated, ſuffers at this moment the want almoſt of every thing. Without clothes, without bread, without friend to ſave him from periſhing of want, he has not even the reſource of the beggar, which ſtill furniſhes a little hope, that of being able to appeal to the compaſſionate, and to preſent his white hairs to thoſe that might be moved to give him aid: my father, if he is not ſpeedily ſuccoured, will die in his place of concealment, and thus, after ſnatching him from a violent death, I ſhall have to ſuſtain the mournful reflection of having betrayed him to one more lingering and painful—that of dying of cold and hunger. Be the judge, citizen general, of the extent of my misfortune, and own that it is worthy of pity. One reſource only is left to me. It is to caſt myſelf upon your generoſity. I offer you my head, I undertake to go, and to go willingly, to the ſcaffold, but give immediate ſuccour to my dying father. Below I give you the name of my place of concealment, there I will expect death with pleaſure, if I may promiſe myſelf that you will be touched with my prayers, and will relieve my old and deſtitute parent.'

The ſoldier had no ſooner read this letter than he haſtened to the aſylum of madame de Rochefoucault, and not only relieved her father, but ſecretly protected both, and after the 9th Thermidor, procured the reſtoration of M. de Rochefoucault's property by a reviſion of their ſentence.

Fortitude.

During the diſaſtrous reign of the aſſignats, a family formerly opulent, conſiſting of a father, mother, and five children, pined in want in a ſmall cottage at the extremity of a town. The father, whoſe temper was violent, ſupported his misfortune with an impatience difficult to expreſs. He frequently conſidered whether he ſhould not put an end to his life. His wife, obſerving the agitation of his mind, and knowing him capable of a raſh act, meditated on the means of withdrawing him from his project. But the difficulty was to find motives ſufficiently ſtrong. His affection for herſelf and his children, was rather calculated to puſh him to extremity; for it was evident, he never thought on them without anguiſh bordering on deſpair. To propoſe to him to have recourſe to the charity of his neighbours, ſhe knew, would wound his pride, which was exceſſive. Beſides, ſhe was not certain of the ſucceſs of that expedient; and ſhe knew, that a refuſal would be a thouſand times more cruel than any ſpecies of torture. Even the reſource of conſo-

lation was not left her, for her husband would not liſten to any topic that might afford hope, but impatiently preſſed her to die with him, and to perſuade their children to the ſame reſolution. Surrounded by ſo many objects of diſcouragement, the wife never abandoned herſelf to deſpair. One idea aroſe in her mind, which ſhe expreſt to her huſband with ſo much tenderneſs and courage, that it almoſt inſtantly reſtored his mind to tranquillity.

'All is not loſt,' ſhe ſaid, 'I have health, and our five children alſo. Let us leave this town, and retire to ſome place where we are not known, and I and my children will labour to ſupport their father.' She added, that if their labour was inſufficient, ſhe would privately beg alms for his ſupport. The huſband ruminated awhile over this propoſition, and took this reſolution with a conſtancy worthy of the honorable life he has ſince led.

'No,' he ſaid, 'I will not reduce you to the diſgrace of beggary for me; but ſince you are capable of ſuch attachment to me, I know what remains to render me worthy of it.'

He then loſt no time in collecting together the remnants of his property, which produced a hundred piſtoles, and quitted the town with his family, taking the road to a diſtant department; and in the firſt place where he thought he was not known, he changed his dreſs for the coarſe dreſs of a peaſant, making his whole family do the ſame; and continuing his route, arrived at a town which he thought fit for his purpoſe; in the neighbourhood of which he hired a cabin, with a field, and a ſmall vineyard. He then bought ſome wool and flax to employ the girls, and tools to cultivate the land for himſelf and the boys, the uſe of which he hired a peaſant to teach him.

A few weeks ſufficed to conquer all difficulties. The example of the father and mother excited emulation among the children; and acquiring a competence from its labour and conſtancy, originating in the courage of the virtuous mother, this family lived perfect patterns of peace and domeſtic union.

Gratitude.

During the unhappy days of September, 1792, a woman conceived the project of rendering funeral honours from motives of gratitude, to her confeſſor, whom ſhe underſtood to be maſſacred at the priſon Des Carmes. As ſhe intently dwelt upon this idea, ſhe heard an extraordinary cry in the ſtreet, by which ſhe was drawn to the window: ſhe ſaw a cart paſſing filled with dead bodies, and among them recogniſed the perſon of her confeſſor! A ſurgeon, one of her neighbours, happened to be with her; pointing out the body, ſhe entreated him to go and purchaſe it of the driver. Yielding to her entreaties, the ſurgeon went to the driver, and telling him his profeſſion, ſaid he wiſhed to purchaſe one of the bodies for diſſection. The driver aſked him twenty crowns, permitting him to take his choice. He paid down the money and took the body pointed out to him, which he cauſed to be conveyed into the houſe of his friend: but what was the ſurgeon's ſurpriſe when he ſaw the prieſt on his feet! Clothes being procured for him, and being in the preſence of his benefactreſs, he ſaid, 'When I ſaw my brethren maſſacred at Des Carmes, I imagined it poſſible to ſave my life by throwing myſelf among the dead bodies as one of them. I was ſtripped, and thrown into the cart in which you ſaw me. I did not receive a ſingle wound: the blood with which you ſaw me covered was that of the carcaſes with which I was confounded. Receive, my benefactreſs, the moſt grateful thanks! It is probable, that, thrown into a quarry with the bodies of my unfortunate companions, I ſhould have periſhed there!' All three then fell on their knees, and returned thanks to Heaven for this ſingular deliverance.

EXPERIMENTS *and* OBSERVATIONS *on certain* STONY *and* METALLINE SUBSTANCES *which at different Times are ſaid to have fallen on the* EARTH; *alſo on various Kinds of* NATIVE IRON: *By* Edward Howard, *Eſq. F. R. S.*

[From the Philoſophical Tranſactions of the Royal Society for 1802.]

THE concordance of a variety of facts ſeems to render it moſt indiſputable, that certain ſtony and metalline ſubſtances have, at different periods, fallen on the earth. Whence their origin, or whence they came, is yet, in my judgment, involved in complete obſcurity.

The accounts of theſe peculiar ſubſtances, in the early annals, even of the Royal Society, have unfortunately been blended with relations which we now conſider as fabulous; and the more ancient hiſtories of ſtones fallen from heaven, from Jupiter, or from the clouds, have evidently confounded ſuch ſubſtances with what have been termed *ceraunia*, *bœtilia*, *ombria*, *brontia*, &c. names altogether unappropriate to ſubſtances fallen on our globe. Indeed ſome miſlead, and others are inexpreſſive.

The term *ceraunia*, by a miſnomer, deduced from its ſuppoſed origin, ſeems, as well as *bœtilia*, to have been anciently uſed to denote many ſpecies of ſtones, which were poliſhed and ſhaped into various forms, though moſtly wedge-light or triangular, ſometimes as inſtruments, ſometimes as oracles, and ſometimes as deities. The import of the names *ombria*, *brontia*, &c. ſeems ſubject to the ſame uncertainty.

In very early ages it was believed that ſtones did in reality fall, as it was ſaid, from heaven, or from the gods; theſe, either from ignorance, or perhaps from ſuperſtitious views, were confounded with other ſtones, which, by their compact aggregation, were better calculated to be ſhaped into different inſtruments, and to which it was convenient to attach a ſpecies of myſterious veneration. In modern days, becauſe exploſion and report have generally accompanied the deſcent of ſuch ſubſtances, the name of thunderbolt, or thunderſtone, has ignorantly attached itſelf to them; and becauſe a variety of ſubſtances accidentally preſent near buildings and trees ſtruck with lightning have, with the ſame ignorance, been collected as thunderbolts, the thunderbolt and the fallen metalline ſubſtance have been ranked in the ſame claſs of abſurdity. Certainly, ſince the phenomena of lightning and electricity have been ſo well identified, the idea of a thunderbolt is ridiculous. But the exiſtence of peculiar ſubſtances fallen on the earth, I cannot heſitate to aſſert; and on the concordance of remote and authenticated facts I ſhall reſt the aſſertion.

Mr. King, the learned author of 'Remarks concerning Stones ſaid to have fallen from the Clouds, in theſe Days, and in ancient Times,' has adduced quotations of the greateſt antiquity, deſcriptive of the deſcent of fallen ſtones; and, could it be thought neceſſary to add antique teſtimonies to thoſe inſtanced by ſo profound an antiquarian, the quotations of monſ. Falconet, in his papers upon bœtilia, inſerted in the *Hiſtoire des Inſcriptions et Belles-Lettres*; the quotations in Zahn's *Specula Phyſico-mathematica Hiſtoriana* *; the *Fiſica Sotterranea* of Giacinto Gemma; the works of Pliny, and others, might be referred to.

Dr. Chladni, in his 'Obſervations on the Maſs of Iron found in Siberia, and on other Maſſes of the like Kind,' as well as in his 'Obſervations on Fire-balls and hard Bodies fallen from

* Fol. 1696, vol. 1, page 385, where a long enumeration of ſtones fallen from the ſky is given.

the Atmoſphere,' has collected almoſt every modern inſtance of phenomena of this nature.

Mr. Southey relates an account, juridically authenticated, of a ſtone weighing ten pounds which was heard to fall in Portugal, February 19, 1796, and was taken, ſtill warm, from the ground.

The firſt of theſe peculiar ſubſtances with which chymiſtry has interfered, was the ſtone preſented by the abbé Bachelay to the Royal French Academy. It was found on the 13th of September 1768, yet hot, by perſons who ſaw it fall. It is deſcribed as follows:

'The ſubſtance of this ſtone is of a pale aſh-gray-colour; when examined with a magnifying glaſs, it is found to be interſperſed with a multitude of ſmall brilliant metallic points of a pale yellow colour; its exterior ſurface, that which, according to the abbé Bachelay, was not engaged in the earth, was covered with a ſmall and very thin ſtratum of a blackiſh matter, puffed up in ſome places, and which appeared to have been fuſed. This ſtone, when the interior of it was ſtruck with ſteel, produced no ſparks: on the other hand, when ſtruck on the thin external ſtratum, which appeared to have been attacked by fire, ſome few ſparks were elicited.'

The ſpecific gravity of this ſtone was as 3535 to 1000.

The academicians analyſed the ſtone, and found it to contain

Sulphur - - - -	8½
Iron - - - -	36
Vitrifiable earth -	55½
	100

Of their mode of analyſis, I ſhall have occaſion to ſpeak hereafter. They were induced to conclude, that the ſtone, preſented to the academy by the abbé Bachelay, did not owe its origin to thunder; that it did not fall from heaven; that it was not formed by mineral ſubſtances, fuſed by lightning; and that it was nothing but a ſpecies of pyrites, without peculiarity, except as to the hepatic ſmell diſengaged from it by marine acid. 'That this ſtone, which was, perhaps, covered by a ſmall ſtratum of earth or turf, may have been ſtruck with lightning, and thus uncovered: the heat may have been ſufficiently great to fuſe the ſurface of the part ſtruck, but it may not have been long enough continued to be able to penetrate to the inſide: on this account, the ſtone has not been decompoſed. The quantity of metallic matters it contains, oppoſing leſs reſiſtance than another body to the current of the electric matter, may perhaps have contributed to determine the direction of the lightning.'

The memoir is however concluded, by obſerving it to be ſufficiently ſingular, that M. Morand le fils had preſented a fragment of a ſtone, from the environs of Coutances, alſo ſaid to have fallen from heaven, which only differed from that of the abbé Bachelay becauſe it did not exhale the hepatic ſmell with ſpirit of ſalt. Yet the academicians did not think any concluſion could be drawn from this reſemblance, unleſs that the lightning had fallen by preference on pyritical matter.

Monſ. Barthold, profeſſeur à l'école centrale du Haut-Rhin, gave, I believe, the next, and laſt *, analytical account of what he alſo denominates *pierre de tonnerre*. He deſcribes it thus:—'The maſs of ſtone known under the name of *pierre de tonnerre d'Enſiſheim*, weighing about two quintals, has its exterior form rounded, almoſt oval, is rugged, and of a dull earthy appearance.

'The ground of the ſtone is of a blueiſh gray colour interſperſed with inſulated cryſtals of pyrites, the cryſtallization of which is confuſed, in ſome places ſcaly, accumulated, form-

* A very intereſting detail of a meteor, and of ſtones fallen in July 1790, was given by profeſſeur Baudin in the *Magazin für das Neueſte aus der Phyſik*, by profeſſor Voigt.

ing nodes and ſmall veins, which traverſe it in every direction: the pyrites is of a golden colour: poliſhing gives the ſplendour of ſteel, and, when expoſed to the atmoſphere, it becomes tarniſhed and brown. One may diſtinguiſh alſo with the naked eye gray ſcaly iron ore, not ſulphureous, ſuſceptible of being attracted by the magnet, little oxidated, or approaching much to the metallic ſtate.

'The fracture is irregular, granulated, of a grain ſomewhat compact: in the inſide very ſmall fiſſures are ſeen. It does not ſtrike fire with ſteel: its texture is ſo ſoft, that it readily ſuffers itſelf to be attacked by a knife. By pounding, it is eaſily reduced to a blueiſh gray powder of an earthy odour. Sometimes there are found ſmall cryſtals of iron ore, which preſent a greater reſiſtance to the blows of the ſtamper.'

The ſpecific gravity of the piece in profeſſor Barthold's poſſeſſion was 3233, diſtilled water being taken at 1000.

The analyſis of M. Barthold, of which I ſhall alſo have occaſion to ſpeak heareafter, gave in the 100,

Sulphur - -	2
Iron - - -	20
Magneſia - -	14
Alumina - -	17
Lime - -	2
Silica - -	42
	97

From the external characters, and from his analyſis, the profeſſor conſiders the ſtone of Enſiſheim to be argillo-ferruginous; and is of opinion, that ignorance and ſuperſtition have attributed to it a miraculous exiſtence, at variance with the firſt notions of natural philoſophy.

The account next in ſucceſſion is already printed in the Tranſactions of the Royal Society; but cannot be omitted, as it immediately relates to one of the ſubſtances I have examined. I allude to the letter received by ſir William Hamilton from the earl of Briſtol, dated from Sienna, July 12, 1794:—'In the midſt of a moſt violent thunder-ſtorm, about a dozen ſtones, of various weights and dimenſions, fell at the feet of different perſons, men, women, and children. The ſtones are of a quality not found in any part of the Sienneſe territory: they fell about eighteen hours after the enormous eruption of mount Veſuvius; which circumſtance leaves a choice of difficulties in the ſolution of this extraordinary phenomenon. Either theſe ſtones have been generated in this igneous maſs of clouds, which produced ſuch unuſual thunder; or, which is equally incredible, they were thrown from Veſuvius, at a diſtance of at leaſt 250 miles; judge then of its parabola. The philoſophers here incline to the firſt ſolution. I wiſh much, ſir, to know your ſentiments. My firſt objection was to the fact itſelf; but of this there are ſo many eye witneſſes, it ſeems impoſſible to withſtand their evidence.' (Phil. Tranſ. for 1795, page 103) Sir William Hamilton, it ſeems, alſo received a piece of one of the largeſt ſtones, which weighed upward of five pounds; and had ſeen another which weighed about one. He likewiſe obſerved, that the outſide of every ſtone which had been found, and had been aſcertained to have fallen from the clouds near Sienna, was evidently freſhly vitrified, and was black, having every ſign of having paſſed through an extreme heat; the inſide was of a light gray colour, mixed with black ſpots and ſome ſhining particles, which the learned there had decided to be pyrites.

In 1796, a ſtone weighing fifty-ſix pounds was exhibited in London, with ſeveral atteſtations of perſons who, on the 13th of December 1795, ſaw it fall, near Wold Cottage, in Yorkſhire, at about three o'clock in the afternoon. It had penetrated through twelve inches of ſoil and ſix inches of ſolid chalk rock; and, in burying itſelf, had thrown up an immenſe quantity of earth to a great diſtance: as it fell, a number of exploſions were

heard, about as loud as piſtols. In the adjacent villages, the ſounds heard were taken for guns at ſea; but, at two adjoining villages, were ſo diſtinct of ſomething ſingular paſſing through the air, toward the habitation of Mr. Topham, that five or ſix people came up to ſee if any thing extraordinary had happened to his houſe or grounds. When the ſtone was extracted, it was warm, ſmoked, and ſmelt very ſtrong of ſulphur. Its courſe, as far as could be collected from different accounts, was from the ſouth-weſt. The day was mild and hazy, a ſort of weather very frequent in the Wold hills, when there are no winds or ſtorms; but there was not any thunder or lightning the whole day. No ſuch ſtone is known in the country. There was no eruption in the earth; and, from its form, it could not come from any building; and, as the day was not tempeſtuous, it did not ſeem probable that it could have been forced from any rocks, the neareſt of which are thoſe of Flamborough Head, at a diſtance of twelve miles. The neareſt volcano I believe to be Hecla in Iceland.

The exhibition of this ſtone as a ſort of ſhow, did not tend to accredit the account of its deſcent, delivered in a hand-bill at the place of exhibition; much leſs could it contribute to remove the objections made to the fall of the ſtones preſented to the Royal French Academy. But the right hon. preſident of the Royal Society, ever alive to the intereſt and promotion of ſcience, obſerving the ſtone ſo exhibited to reſemble a ſtone ſent to him as one of thoſe fallen at Sienna, could not be miſled by prejudice: he obtained a piece of this extraordinary maſs, and collected many references to deſcriptions of ſimilar phenomena. At length, in 1799, an account of ſtones fallen in the Eaſt Indies was ſent to the preſident by John Lloyd Williams, eſq. which, by its unqueſtionable authenticity, and by the ſtriking reſemblance it bears to other accounts of fallen ſtones, muſt remove all prejudice. Mr. Williams has ſince drawn up the following more detailed narrative of facts.

Account of the Exploſion of a Meteor near Benares, in the Eaſt Indies; and of the Falling of ſome Stones at the ſame Time, about 14 Miles from that City, By John Lloyd Williams, *Eſq. F. R. S.*

A circumſtance of ſo extraordinary a nature as the fall of ſtones from the heavens could not fail to excite the wonder and attract the attention of every inquiſitive mind.

Among a ſuperſtitious people, any preternatural appearance is viewed with ſilent awe and reverence: attributing the cauſes to the will of the Supreme Being, they do not preſume to judge the means by which they were produced, nor the purpoſes for which they were ordered; and we are naturally led to ſuſpect the influence of prejudice and ſuperſtition in their deſcriptions of ſuch phenomena: my inquires were therefore chiefly directed to the Europeans, who were but thinly diſperſed about that part of the country.

The information I obtained was, that on the 19th of December 1798, about eight o'clock in the evening, a very luminous meteor was obſerved in the heavens, by the inhabitants of Benares and the parts adjacent, in the form of a large ball of fire; that it was accompanied by a loud noiſe reſembling thunder; and that a number of ſtones were ſaid to have fallen from it near Krakhut, a village on the north ſide of the river Goomty, about 14 miles from the city of Benares.

The meteor appeared in the weſtern part of the hemiſphere, and was but a ſhort time viſible: it was obſerved by ſeveral Europeans, as well as natives, in different parts of the country.

In the neighbourhood of Juanpoor, about twelve miles from the ſpot where the ſtones are ſaid to have fallen, it was very diſtinctly obſerved by ſeve-

ral European gentlemen and ladies; who deſcribed it as a large ball of fire, accompanied with a loud rumbling noiſe, not unlike an ill-diſcharged platoon of muſketry. It was alſo ſeen, and the noiſe heard, by various perſons at Benares. Mr. Davies obſerved the light come into the room where he was, through a glaſs window, ſo ſtrongly as to project ſhadows from the bars between the panes, on a dark coloured carpet, very diſtinctly; and it appeared to him as luminous as the brighteſt moonlight.

When an account of the fall of the ſtones reached Benares, Mr. Davis, the judge and magiſtrate of the diſtrict, ſent an intelligent perſon to make inquiry on the ſpot. When the perſon arrived at the village near which the ſtones were ſaid to have fallen, the natives, in anſwer to his inquiries, told him, that they had either broken to pieces, or given away to the *teſſeldar* (native collector) and others, all that they had picked up; but that he might eaſily find ſome in the adjacent fields, where they would be readily diſcovered (the crops being then not above two or three inches above the ground) by obſerving where the earth appeared recently turned up. Following theſe directions, he found four, which he brought to Mr. Davis: moſt of theſe the force of the fall had buried, according to a meaſure he produced, about ſix inches deep, in fields which ſeemed to have been recently watered; and it appeared, from the man's deſcription, that they muſt have lain at the diſtance of about a hundred yards from each other.

What he further learnt from the inhabitants of the village concerning the phenomenon was, that about eight o'clock in the evening, when retired to their habitations, they obſerved a very bright light, proceeding as from the ſky, accompanied with a loud clap of thunder, which was immediately followed by the noiſe of heavy bodies falling in the vicinity. Uncertain whether ſome of their deities might not have been concerned in this occurrence, they did not venture out to inquire into it until the next morning; when the firſt circumſtance which attracted their attention was the appearance of the earth being turned up in different parts of their fields as before mentioned, where, on examining, they found the ſtones.

The aſſiſtant to the collector of the diſtrict, Mr. Erſkine, a very intelligent young gentleman, on ſeeing one of the ſtones, brought to him by the native ſuperintendant of the collections, was alſo induced to ſend a perſon to that part of the country to make inquiry; who returned with ſeveral of the ſtones, and brought an account ſimilar to that given by the perſon ſent by Mr. Davis, together with a confirmation of it from the cauzy, (who had been directed to make the inquiry) under his hand and ſeal.

Mr. Maclane, a gentleman who reſided very near the village of Krakhut, gave me part of a ſtone that had been brought to him the morning after the appearance of the phenomenon, by the watchman who was on duty at his houſe; this, he ſaid, had fallen through the top of his hut, which was cloſe by, and buried itſelf ſeveral inches in the floor, which was of conſolidated earth. The ſtone muſt, by his account, previous to its having been broken, have weighed upward of two pounds.

At the time the meteor appeared, the ſky was perfectly ſerene; not the ſmalleſt veſtige of a cloud had been ſeen ſince the 11th of the month, nor were any obſerved for many days after.

Of theſe ſtones, I have ſeen eight, nearly perfect, beſide parts of ſeveral others, which had been broken by the poſſeſſors to diſtribute among their friends. The form of the more perfect ones appeared to be that of an irregular cube, rounded off at the edges; but the angles were to be obſerved on moſt of them. They were of various ſizes, from about three to upward of four inches in their largeſt diameter; one of them, meaſuring

four inches and a quarter, weighed two pounds twelve ounces. In appearance, they were exactly ſimilar, externally they were covered with a hard black coat or incruſtation, which in ſome parts had the appearance of varniſh, or bitumen; and on moſt of them were fractures, which, from their being covered with a matter ſimilar to that of the coat, ſeemed to have been made in the fall, by the ſtones ſtriking againſt each other, and to have paſſed through ſome medium, probably an intenſe heat, previous to their reaching the earth. Internally, they conſiſted of a number of ſmall ſpherical bodies, of a ſlate colour, embedded in whitiſh gritty ſubſtance, interſperſed with bright ſhining ſpiculæ, of a metallic or pyritical nature. The ſpherical bodies were much harder than the reſt of the ſtone: the white gritty part readily crumbled, on being rubbed with a hard body; and, on being broken, a quantity of it attached itſelf to the magnet, but more particularly the outſide coat or cruſt, which appeared almoſt wholly attractable by it.

As two of the more perfect ſtones which I had obtained, as well as parts of ſome others, have been examined by ſeveral gentlemen well verſed in mineralogy and chymiſtry, I ſhall not attempt any further deſcription of their conſtituent parts; nor ſhall I offer any conjecture reſpecting the formation of ſuch ſingular productions, or even record thoſe which I have heard of others, but leave the world to draw their own inferences from the facts above related. I ſhall only obſerve, that it is well known there are no volcanos on the continent of India; and, as far as I can learn, no ſtones have been met with in the earth, in that part of the world, which bear the ſmalleſt reſemblance to thoſe above deſcribed.

[To be continued.]

EXTRACTS *from* ASCERBI'S TRAVELS *through* SWEDEN, *&c.*

STOCKHOLM.

THE grand and moſt diſtinguiſhed feature in the locality of this city, namely, being ſituate on iſlands, amid gulfs and lakes, is deſtroyed by the ice. The ſame water which divides the inhabitants of the different quarters in ſummer unites them in winter. It becomes a plain which is traverſed by every body. The iſlands are iſlands no longer: horſes in ſledges, phaetons, and in vehicles of all ſorts, placed on ſcates, ſcour the gulf and lakes by the ſide of ſhips fixed in the ice, and aſtoniſhed as it were to find themſelves in ſuch company on the ſame element.

There is no part of this great maſs of water that is not arreſted and ſubdued by the froſt, except the current under the north bridge, and on the ſouth near the king's ſtable. Here the water, which during the keeneſt froſt daſhes and foams with great noiſe through the arches of the bridge, ſends up majeſtic clouds of vapour to a conſiderable height in the atmoſphere, where, in the extreme rigour of winter, being converted by the intenſeneſs of the cold into ſolid particles, they are precipitated down through their weight, and preſenting their ſurface to the ſun, aſſume the appearance of a ſhower of ſilver ſand reflecting the ſolar rays, and adorned with all manner of colours. In the interior of Stockholm, throughout all its different quarters, every thing in winter in like manner undergoes a ſudden change. The ſnow that begins to fall in the latter weeks of autumn covers and hides the ſtreets for the ſpace of ſix months, and renders them more pleaſant and convenient than they are in ſummer or autumn, at which ſeaſons, partly on account of the pavement, and partly on account of the dirt, they are often almoſt impaſſable. One layer of ſnow on another, hardened by the froſt, forms a ſurface more equal and agreeable to walk on, which is ſometimes raiſed more than a yard above the ſtones of the ſtreet. You

are no longer ſtunned by the irkſome noiſe of carriage wheels, but this is exchanged for the tinkling of little bells, with which they deck the horſes before the ſledges. The only wheels now to be ſeen in Stockholm are thoſe of ſmall carts employed by men ſervants of families to fetch water from the pump in a caſk. This compound of cart and caſk always ſtruck me as a very curious and extraordinary object, inſomuch that I once took the trouble of following it, in order to have a nearer view of the whimſical robe in which the froſt had inveſted it, and particularly of the variegated and fantaſtical drapery in which the wheels were covered and adorned. This vehicle, with all its appurtenances, afforded to a native of Italy a very ſingular ſpectacle. The horſe was wrapped up, as it ſeemed, in a mantle of white down, which, under his breaſt and belly, was fringed with points and tufts of ice. Stalactical ornaments of the ſame kind, ſome of them to the length of a foot, were alſo attached to his noſe and mouth. The ſervant that attended the cart had on a frock, which was encruſted with a ſolid maſs of ice. His eye-brows and hair jingled with icicles, which were formed by the action of the froſt on his breath and perſpiration.

The ſeaſon of ſummer, at which time the nobility and gentry retire to their country houſes, are fitted up with great magnificence and luxury. Thoſe villas are for the moſt part pleaſantly ſituate, and embelliſhed by works of art, which ſecond and improve the efforts of nature. You there find hot-houſes, in which they raiſe peaches, pine-apples, grapes, and other fruits. All kinds of wines, liquors, and other delicacies, are laviſhed at the table of a Swediſh gentleman, or rich manufacturer, or merchant in the country.

Royal Proceſſion.

On the 24th of June, or Midſummer-day, the king and royal family come to the park, where they take up their abode in tents for the remainder of the month, that is for the ſpace of nearly a week. A camp is formed of the garriſon of Stockholm, compoſed of two regiments of foot-guards, ſome companies of horſe-guards, and a corps of artillery. Along the lines of the camp they raiſe poles or poſts, adorned with branches of cyphers, and ſometimes ſcutcheons with mottos or devices. At the foot of the poſts are placed barrels of beer on wooden frames. About ſix or ſeven o'clock in the afternoon, on a particular ſignal, the barrels are opened, when each ſoldier is preſented with a pipe, a loaf of bread, two herrings, and ſome money. All this is done at the expence of the officers. In the mean time the military muſic plays, and the ſoldiers begin to drink and to dance. Upon each of the barrels ſits a ſoldier, in the form of a Bacchus, or of ſome other figure more or leſs ridiculous. Thoſe that are dreſſed up in this manner firſt taſte the liquor and propoſe the toaſts, which are generally numerous, and conſtantly accompanied with the cry of *vivat*, anſwering to the Engliſh huzza. When any of the royal family, or a general officer, chance to paſs by, their healths are drank, and always with the ſame accompaniment of *vivat*. A kind of maſquerade enſues for a ſhort time, during which the ſoldiers amuſe the people, that flock round them in the lines of the camp with ſongs, and indulge themſelves in various freaks and acts of merriment. On the beating of the retreat every thing is ſubmitted to the reign of order. Such feſtivals, without diminiſhing reſpect, certainly tend to excite in the ſoldiery and people an intereſt and attachment to the royal family.

Dinner-parties.

The Swediſh dinner parties are expenſive arrangements of ſhow and formality. It will often happen, that out of forty or fifty people, who appear in conſequence of an invitation ſent with all poſſible ceremony, and

perhaps a week or a fortnight before the appointed day, ſcarcely three or four know one another ſufficiently to make the meeting agreeable. A foreigner may ſtill fare worſe, and have the misfortune of being ſeated near a perſon totally unacquainted with any language but his own. Before the company ſit down to dinner, they firſt pay their reſpects to a ſide table, laden with bread, butter, cheeſe, pickled ſalmon, and liquor, or brandy, and by the taſting of theſe, previous to their repaſt, endeavour to give an edge to their appetite, and to ſtimulate the ſtomach to perform its office. After this prelude, the gueſts arrange themſelves about the dinner table, where every one finds at his place three kinds of bread, flat and coarſe rye bread, white bread, and brown bread. The firſt ſort is what the peaſants eat; it is criſp and dry; the ſecond ſort is common bread; but the brown, laſt mentioned, has a ſweet taſte, being made with the water with which the veſſels in the ſugar houſes are waſhed, and is the naſtieſt thing poſſible. All the diſhes are at once put upon the table, but no one is allowed to aſk for what he likes beſt, the diſhes being handed round in regular ſucceſſion; and an Engliſhman has often occaſion for all his patience, to wait till the one is put in motion on which he has fixed his choice. The Swedes are more knowing in this reſpect, and, like the French, eat of every thing that comes before them: and although the different diſhes do not ſeem to harmonize together, yet ſuch is the force of habit, that the gueſts find no inconvenience from the moſt oppoſite mixtures. Anchovies, herrings, onions, eggs, paſtry, often meet together on the ſame plate, and are ſwallowed promiſcuouſly. The ſweet is aſſociated with the ſour, muſtard with ſugar, confectionaries with ſalt meat, or ſalt fiſh; in ſhort, eatables are intermingled with a poetical licence, that ſets the precepts of Horace at defiance.—

Sed non ut placidis coeantimmitia.

Extreme Paſſion for Cards.

A nobleman of great rank having waited longer than uſual for his dinner, and ſeeing that no preparation was made for it, went down to call his ſervants to an account, and to examine into the reaſon of the delay. He found his houſehold, in imitation of their ſuperiors, deeply engaged at cards. They excuſed themſelves to their maſter by telling him, that they were now at the moſt intereſting point of the game; and the butler, who had the greateſt ſtake, took the liberty of explaining the caſe to his excellency, who could not in conſcience but approve his reaſons. However, being unwilling to wait for his dinner till the game was decided, he ſent the butler to lay the cloth, while he himſelf ſat down with the other ſervants, and managed the intereſt of that individal in his abſence.

Gulph of Bothnia.

The diſtance acroſs is forty-three Engliſh miles, thirty of which you travel on the ice without touching on land. This paſſage over the frozen ſea is, doubtleſs, the moſt ſingular and ſtriking ſpectacle that a traveller from the ſouth can behold. I laid my account with having a journey more dull and unvaried than ſurpriſing or dangerous. I expected to travel forty-three miles without ſight of land, over a vaſt and uniform plain, and that every ſucceſſive mile would be in exact uniſon and monotonous correſpondence with thoſe I had already travelled; but my aſtoniſhment was greatly increaſed in proportion as we advanced from our ſtarting poſt. The ſea, at firſt ſmooth and even, became more and more rugged and unequal. It aſſumed, as we proceeded, an undulating appearance, reſembling the waves by which it had been agitated. At length we met with maſſes of ice heaped one upon the other, and ſome of them ſeeming as if they were ſuſpended in the air, while others were raiſed in the form of pyramids. On the whole, they exhibited a picture of the

wildeſt and moſt ſavage confuſion, that ſurprized the eye by the novelty of its appearance. It was an immenſe chaos of icy ruins, preſented to view under every poſſible form, and embelliſhed by ſuperb ſtalactites of a blue green colour.

Amid this chaos, it was not without difficulty and trouble that our horſes and ſledges were able to find and purſue their way. It was neceſſary to make frequent windings, and ſometimes to return in a contrary direction, following that of a frozen wave, in order to avoid a collection of icy mountains that lay before us. In ſpite of all our expedients for diſcovering the eveneſt paths, our ſledges were every moment overturned to the right or the left; and frequently the legs of one or other of the company, raiſed perpendicularly in the air, ſerved as a ſignal for the whole caravan to halt. The inconvenience and danger of our journey were ſtill further increaſed by the following circumſtance: Our horſes were made wild and furious, both by the ſight and ſmell of our great peliſſes, manufactured of the ſkins of Ruſſian wolves or bears. Whenever one of the ſledges was overturned, the horſes belonging to it, or to that next to it, frighted at the ſight of what they ſuppoſed to be a wolf or bear rolling on the ice, would ſet off at full gallop, to the great terror of both paſſenger and driver. The peaſant, apprehenſive of loſing his horſe in the midſt of this deſert, kept firm hold of the bridle, and ſuffered the horſe to drag his body through maſſes of ice, of which ſome ſharp points threatened to cut him to pieces. The animal, at laſt wearied out by the conſtancy of the man, and diſheartened by the obſtacles continually oppoſed to his flight, would ſtop; then we were enabled to get into our ſledges, but not till the driver had blindfolded the animal's eyes.

METHOD *of* WHITENING *the* GRAY MARINE SALT *to fit it for domeſtic Purpoſes inſtantaneouſly, and without the Aid of Heat.*

[By PAJOT DESCHARMES.]

GRAY or unrefined marine ſalt, as every body knows, is covered with a thin earthy cruſt which alters more or leſs its whiteneſs; and it is a matter of ſome conſequence, both in regard to cleanlineſs and health, to purify it from this heterogeneous ſubſtance which covers all the faces of its cryſtals.

Hitherto this ſalt has been purified or refined only by ſolution, filtration, or precipitation, according as the operation is performed on a large or a ſmall ſcale, and then by evaporation. This method requires time, wood or charcoal, and proper veſſels. Many perſons, however, are unacquainted with this proceſs; ſometimes they have not leiſure to employ it; and ſometimes they have neither the neceſſary veſſels nor fuel.

I have thought, therefore, that a proceſs which requires neither fire nor particular veſſels, is attended with no expence, may be practiſed at all times, and is within the reach of every one, might be of general utility. This method is as follows:

Take four ounces of gray-ſalt, and, if dry, beſprinkle it gently with water till it be only what is called moiſt; but it will be very ſeldom neceſſary to have recourſe to this operation. Put the ſalt into the corner of a table napkin or piece of linen cloth, and form the cloth into a kind of knot or bag, which you muſt hold in one hand, while with the other you rub and ſhake the ſalt againſt the inſide of the cloth for the ſpace of half an hour. Then ſhift the ſalt to another place of the cloth, ſucceſſively repeating the ſame manœuvre ſix, ſeven, or eight times, according as the ſalt is more or leſs gray. After the ſalt has been rolled for the firſt time, the cloth be-

gins to exhibit ſpots occaſioned by the earth which the ſalt depoſits, and of which the intenſity ſenſibly decreaſes at each change of place till they entirely diſappear. In general, the ſalt muſt be beſprinkled every two or three times that its place is changed. The bleaching will be accelerated by pounding the ſalt ſlightly before it is beſprinkled.

After two or three aſperſions and rubbings, the ſalt is, in general, as pure and white as that refined, according to the uſual method, by ſolution and evaporation. The loſs in both caſes is nearly the ſame; that is to ſay, about an eighth, when the ſalt is dry, and when care has been taken at each change of place to ſhake off the grains which adhere to the cloth. It is, for the moſt part, the whiteſt ſalt that adheres in this manner; and it may be ſhaken off without fear, as the earth depoſited on the cloth cannot detach itſelf till the cloth is dry. The gray ſalt of commerce contains in general 12½ per cent. of foreign matters, nearly one-half of which is water, and about as much earth.

This proceſs, which on account of its ſimplicity I conſider as likely to become uſeful for domeſtic purpoſes, might perhaps be applicable to ſalt manufactories and ſalt refineries.

ON THE ANATOMY OF VEGETABLES.

[By C. Mirbel.]

Of the Elementary Organs.

AFTER ſtudying the works of Duhamel, Senebier, de Sauſſure, and ſeveral other philoſophers, without being able to form any fixed opinion of the internal anatomy of vegetables, it appeared to me that it would be more advantageous to ſtudy nature in her own works. I endeavoured to baniſh from my mind every thing ſyſtematic, in order that my obſervations might be free from every kind of bias. All vegetables have too much relation in the mode of the development of their organization not to exhibit great ſimilitude. This reflection, which naturally preſents itſelf to the mind, induced me to direct my firſt obſervations to one ſpecies. I made choice of the elder, as having a looſer texture, and eaſier to be obſerved, than that of many other vegetables. During ſix months, I employed all the known proceſſes for acquiring a knowledge of the organs of that plant. I uſed comparatively four or five different microſcopes; and, when I ſuppoſed that I had got the whole ſeries of facts, I tried the ſame obſervations on a great number of other vegetables. The compariſons I then made greatly contributed to give me information reſpecting the nature and form of the organs; and to obviate, by every means poſſible, the illuſions which might lead me into a falſe path, I begged C. Maſſey, my friend and fellow-labourer, to reviſe my obſervations, and to examine them with the ſevereſt criticiſm. His obſervations compared with mine have either confirmed or rectified them.

I ſhall now give a deſcription of the parts which I call elementary organs, becauſe all the other organs are compoſed of them.

Of thoſe Parts which are diſtinguiſhed by the naked Eye.

Vegetables in general are compoſed, as every body may have obſerved, of ſoft and hard parts. Some, indeed, ſuch as muſhrooms and fuci, ſeem to be formed entirely of a homogeneous ſubſtance, pretty ſoft; but this claſs is not very numerous.

The ſtem of the moſt perfect plants preſents at its ſurface a coloured ſubſtance of greater or leſs thickneſs, which is the bark. It adheres ſtrongly to the interior parts in a great many of the monocotyledons, and ſometimes even is confounded and connected with them in ſuch a manner that it is

impoſſible to diſtinguiſh them. It may in this caſe be ſaid that no bark exiſts. This phenomenon is obſerved in the palms, gramineous plants, &c. But in the dicotyledons and ſome monocotyledons the bark, very diſtinct from the reſt of the tiſſue, forms an exterior ſtratum, which may be eaſily detached.

Below the bark is found the wood more compact, harder, and more connected in all its parts, and which ſeems to be formed of longitudinal fibres ſtrongly cemented to each other. In the monocotyledons without bark there is found, immediately below the epidermis, a fine tranſparent membrane, which is the exterior part of the vegetable.

The wood, as the learned Desfontains has ſaid in his excellent memoir on the Comparative Anatomy of Vegetables, is diſtributed lengthwiſe in the ſtem and branches of the monocotyledons in delicate threads: theſe threads are often parallel, and ſometimes convergent one toward the other; they unite one and one, two and two, or divide themſelves, and become ramified in threads of ſtill greater fineneſs. All theſe threads are ſurrounded with a ſoft, elaſtic, ſpongy ſubſtance, eaſily torn, and generally whitiſh, which is called the pith, and to which I ſhall give the name of *parenchyme*, that it may not be confounded with the pith of the dicotyledon plants. The wood of the latter, lying always under the bark, is not divided into diſtinct threads; it generally forms a cylinder, in the centre of which is placed the pith, as in a caſe. Some plants, however, evidently furniſhed with two cotyledons, exhibit ligneous filaments ſimilar to thoſe of the monocotyledons, running along the whole length of the medullary canal: but theſe are exceptions which do not deſtroy the general rule.

In trees or ſhrubs with two cotyledons there are almoſt always obſerved diſtinct lines of the wood, which proceed from the pith, traverſe the ligneous cylinder, and end at the bark. They appear on the tranſverſal ſection of the trunk, ſtem, branches, and twigs, like the hour-lines of a dial. They are called the medullary radii. They ſeldom ſhow themſelves in the ſtems of the dicotyledon herbs, and do not exiſt in the monocotyledons either herbaceous or ligneous.

In the leaves, flowers, pericarpia, &c. there are found alſo parts of greater or leſs ſoftneſs, and greater or leſs hardneſs, the ſubſtance of which appears to be ſimilar to the bark, pith, or wood.

Such are the different parts which vegetables exhibit to the naked eye. We muſt now examine the elementary organs which enter into their compoſition.

Of the Membranous Tiſſue.

Vegetables are compoſed of a membranous tiſſue, which varies in its form and conſiſtence, not only in the different ſpecies, but even in the ſame individual. I ſhall not here examine whether the membranes are compoſed of organic fibres, ranged cloſe to each other and united by a gluten, as ſome authors aſſert. This ſuppoſition is ſuſceptible neither of ſtrict demonſtration, nor a formal refutation; it is one of thoſe ſyſtems which amuſe the mind when reſearch becomes fruitleſs. I ſhall content myſelf with ſtating, that, whatever may have been the perſeverance of my obſervations, I never obſerved real fibres in vegetables; the filaments to which that name has been given are only membranes, which tear into longitudinal ſtripes: ſuch were the delicate filaments which Duhamel ſeparated from a bit of wood which he obſerved through the microſcope.

The membranous tiſſue, though continued in all its parts, forms two kinds of different organs; the cellular tiſſue, and the tubular tiſſue.

Of the Cellular Tiſſue.

This tiſſue preſents to the obſerver a ſeries of membranous bags, which on

the firſt view ſeem to have no communication with each other. They are not ſmall bladders or utriculi, as moſt authors aſſert; they are a membrane, which bends itſelf, in ſome meaſure, to form vacuities contiguous to each other. In the parts where theſe cells experience no foreign preſſure, they are all equally dilated, their tranſverſal and vertical ſections preſent hexagons ſimilar to the alveolæ of beehives; each ſide of theſe geometrical figures is common to two cells, and the whole tiſſue is wonderfully regular: but, when the tiſſue is compreſſed, the hexagons loſe their ſhape, and are converted ſometimes into parallelograms more or leſs elongated. The membranous ſides of the cells are exceedingly thin and colourleſs: they are tranſparent like glaſs, and their organization is ſo delicate, that it cannot be perceived even with th help of the moſt powerful microſcopes. They are generally filled with pores, the apertures of which do not certainly exceed the 300th part of a line; theſe pores are bordered with ſmall unequal and glandulous rolls, which intercept the light, and refract it with force when they receive its rays. The cellular tiſſue is ſpongy, elaſtic, and without conſiſtence; when immerſed in water it becomes altered, and, in a little time, is even deſtroyed: it is then reduced to a kind of mucilage. Theſe pores eſtabliſh a communication between one cell and another, and ſerve for the tranſfuſion of the juices in that tiſſue, which is exceedingly ſlow. I muſt alſo obſerve, that it is not a *conductor* of the fluids diffuſed throughout the vegetable, and that it produces nothing of itſelf.

I have ſaid that the membranes are tranſparent and colourleſs: when the tiſſue is diſengaged from every foreign body, this is true; but it is often marked by colouring ſubſtances, which tarniſh its tranſparency. This tiſſue exiſts in all vegetables, but not in the ſame proportion. Muſhrooms and fuci appeared to me to be compoſed only of cellular tiſſue. The bark of monocotyledons and dicotyledons is almoſt entirely formed of it: in theſe, it is generally ſomewhat compreſſed between the epidermis and the wood; it is filled with reſinous juices, commonly coloured green, but ſometimes red or yellow, according to the nature of the vegetable. This gives different tints to the epidermis, which is nothing elſe than the exterior ſide of the firſt row of cells, as the illuſtrious Malphigi ſuppoſed. The pith in all plants is compoſed of hexagonal cells. In herbaceous plants, and particularly theſe which are highly ſucculent, theſe cells are often filled with juices more or leſs thick or coloured. In ligneous plants, naturally drier, they are, on the other hand, almoſt entirely empty, and tranſparent. The cellular tiſſue in bulbous roots is pulpy and ſucculent; in the cotyledons it is hard and brittle; and in the albumen and ſeeds it is dry and arid. The parenchyme of the leaves, of the bracteæ, ſtipulæ, and calyces, is formed by cells filled with a juice almoſt always coloured, and green. The rich corollæ, which diſplay to the light the elegance of their forms and the ſplendour of their colours, but of which the beauty and freſhneſs vaniſh in a moment, are not ſo thin as the delicate membranes of the cellular tiſſue: the juices which ſwell the tranſparent utriculi of which they are formed give them theſe colours; the one ſometimes diffuſed into the other by imperceptible tints, ſometimes abruptly oppoſed, and heightening their ſplendour by the contraſt. Here the cellular tiſſue is ſo delicate, that the ſlighteſt touch is ſufficient to alter and tarniſh it: the leaſt preſſure reduces it to mucilage, and it appears to be the momentaneous product of the air and water. This tiſſue is obſerved alſo in the ſtamina and the piſtils. The pollen, that fine duſt which contains the ſubtile fluid neceſſary for fecundation, appears to be only an accumulation of ſmall bags formed of the cellular tiſſue: in a word, it is this tiſ-

ſue which, by dilating itſelf, produces ſucculent fruits.

The cells are proportionally more abundant in herbs than in trees, and in young ſhoots than in old timber. The embryo is compoſed almoſt entirely of cellular tiſſue. The medullary radii, which extend from the centre to the circumference in the trunks and branches of trees with two cotyledons, are ſometimes alſo nothing but a thin membrane of cells.

[To be continued.]

ANTIQUITY OF COURSING.

[From the Rev. W. B. Daniel's Rural Sports.]

THIS amuſement is of great antiquity, and is treated on by Arrian, who flouriſhed A. D. 150. It was firſt uſed by the Gauls, the moſt luxurious and opulent of whom, uſed to ſend out good hare-finders early in the morning, to thoſe places where it was likely to find hares ſitting; they returned to their employers with an account of the number of hares found, who then mounted their horſes and took out their greyhounds to courſe them; not more than two greyhounds were to be ran at once, and thoſe were not to be laid in too cloſe to the hare, for although the animal is ſwift, yet when firſt ſtarted, ſhe is ſo terrified by the hallooing, and by the cloſeneſs and ſpeed of the dogs, that her heart is overcome with fear, and in the confuſion very often the beſt ſporting hares were killed without ſhewing any diverſion; ſhe was therefore allowed to run ſome diſtance from her ſeat, before the dogs were ſet after her. The beſt hares were thoſe found in open and expoſed places; they did not immediately try to avoid the danger by running to woods, but while contending in ſwiftneſs with the greyhounds, moderated their own ſpeed according as they were preſſed; if overmatched in ſpeed by the dogs, they then tried to gain ground by frequent turns, which threw the dogs beyond them, making at the ſame time their ſhorteſt way to the covers, or neareſt ſhelter. The true ſportſman, even in Arrian's time, did not take out his dogs to deſtroy the hares, but for the ſake of ſeeing the conteſt between them, and was glad if the hare eſcaped, which was never prevented, by diſturbing any brake in which ſhe might have concealed herſelf, after beating the greyhounds. They were alſo frequently taken alive from the dogs, by the horſemen who cloſely followed them, and after the greyhounds were taken up, were turned down for future ſport. They uſed to ſpeak to their greyhounds while in the field, conſidering it a kind of encouragement to them to know that their maſter was a witneſs of the excellence of their running; but this ſpeaking was recommended to be chiefly confined to the firſt courſe, leſt, after being weakened by a ſecond or third, they might, by ſuch encouragement, exert themſelves beyond their ſtrength, and hurt their inſides, which was thought to be the deſtruction of many good dogs.

Thoſe who had not the conveniency of harefinders, went out commonly in a company on horſeback, when they beat the likely grounds, and on ſtarting a hare the greyhounds were let looſe after her: thoſe who were more keen after the ſport, uſed to go on foot, and if any one accompanied them on horſeback, it was his buſineſs to follow the dogs during the courſe. It is ſingular, that after the lapſe of ſo many centuries, the mode of beating for a hare in courſing, ſhould be now, exactly what it then was. The company were drawn up in a ſtraight rank, either horſe or footmen, and proceeded at certain diſtances from each other, in a direct line to a given point, and wheeling round that they might not go over preciſely the

ſame track, they beat the ground regularly back. This practice is ſtill continued. A perſon was appointed to take the command of the ſport, if there were many dogs out; he gave orders that ſuch and ſuch dogs ſhould be ſlipped, according as the hare took to the right or left, and theſe orders were punctually obeyed.

The Gauls ſometimes mixed and uſed finders with their greyhounds, and while theſe tried to find the hare, the greyhounds were led by the hand at a ſmall diſtance, taking care however to lead them where the hare was moſt likely to come; and here the greyhounds pretty well ſupplied the uſe of Zenophon's nets. This method of courſing was deemed irregular, as the ſtouteſt hares were ſo alarmed with the cries of the finders, that if they did not ſtart a very conſiderable way before, they were ſure to be killed. This method is very much practiſed in ſome parts of Great Britain, to the great conſolation of thoſe, who think no courſe worth ſeeing, unleſs there is a hare at the end of it.

A young hare when found ſitting, was not diſturbed, as it was conſidered unfair to run the greyhounds at her; but with the finders, (who are ſaid to have been very eager through hunger, and ſo deſirous of eating up what they caught, that it was difficult to get them off, even by beating them with ſticks) the exerciſe of this clemency was impoſſible.

In our own country, during the reign of king John, greyhounds were frequently received by him as payment in lieu of money, for the renewal of grants, fines and forfeitures belonging to the crown; the following extracts prove this monarch to have been exceedingly partial to this kind of dogs. A fine paid A. D. 1203, mentions five hundred marks, ten horſes, and ten leaſhes of greyhounds; another, in 1210, one ſwift running horſe, and ſix greyhounds.

The greyhound in ancient times was conſidered as a very valuable preſent, and eſpecially by the ladies, with whom it appears to have been a peculiar favourite: in a very old metrical romance, called Sir Eglamore, a princeſs tells the knight that if he was inclined to hunt, ſhe would, as an eſpecial mark of her favour, give him an excellent greyhound, ſo ſwift that no deer could eſcape from his purſuit.

Syr yf you be on huntynge founde,
I ſhall you gyve a good greyhounde
That is dunne as a doo:
For as I am trewe gentylwoman,
There was never deer that he at ran,
That might yſcape him fro.

The Iſle of Dogs, now converting to the firſt commercial purpoſes, derived its name from being the depot of the ſpaniels and greyhounds of Edward III, and this ſpot was choſen, as lying contiguous to his ſports of woodcock ſhooting, and courſing the red deer, in Waltham and the other royal foreſts in Eſſex, for the more convenient enjoyment of which, he generally reſided in the ſporting ſeaſon, at Greenwich.

In the days of Eliſabeth, when ſhe was not herſelf diſpoſed to hunt, ſhe was ſo ſtationed as to ſee the courſing of deer with greyhounds. At Cowdrey in Suſſex, the ſeat of lord Montecute, A. D. 1591, one day after dinner, the queen ſaw from a turret, 'ſixteen bucks all having fayre lawe, pulled down with greyhounds in a laund or lawn.'

In ancient times three ſeveral animals were courſed with greyhounds, the deer, the fox, and the hare. The two former are not practiſed at preſent, but the courſing of deer formerly was a recreation in high eſteem, and was divided into two ſorts; the paddock and the foreſt or *purlieu*. For the paddock courſing, beſide the greyhounds, which never exceeded two, and for the moſt part conſiſted of one brace, there was the teazer or mongrel greyhound, whoſe buſineſs it was to drive the deer forward before the real greyhounds were ſlipt. The paddock was a piece of ground generally taken out of a park, and fenced with pales or a wall; it was a mile in length,

and about a quarter of a mile in breadth, but the further end was always broader than that which the dogs ſtarted from, the better to accommodate the company in ſeeing which dog won the match. At the hither end was the dog-houſe, (to encloſe the dogs that were to run the courſe) which was attended by two men, one of whom ſtood at the door to ſlip the dogs, the other was a little without the door, to let looſe the teaſer to drive away the deer. The pens for the deer intended to be courſed, were on one ſide, with a keeper or two to turn them out; on the other ſide, at ſome diſtance, ſtood the ſpectators. Along the courſe were placed poſts. The firſt, which was next the dog-houſe and pens, was the law-poſt, and was diſtant from them one hundred and ſixty yards. The ſecond was the quarter of a mile, the third the half mile, the fourth the pinching poſt, and the fifth marked diſtance, in lieu of a poſt, was the ditch, which was a place made ſo as to receive the deer, and keep them from being further purſued by the dogs. Near to this place were ſeats for the judges, who were choſen to decide the wager.

So ſoon as the greyhounds that were to run the match were led into the dog-houſe, they were delivered to the keepers, who by the articles of courſing were to ſee them fairly ſlipt; for which purpoſe, there was round each dog's neck a falling collar which ſlipt through rings. The owners of the dogs drew lots which dog ſhould have the wall, that there ſhould be no advantage; the dog-houſe door was then ſhut, and the keeper turned out the deer; after the deer had gone about twenty yards, the perſon that held the teaſer looſed him, to force the deer forward, and when the deer was got to the law-poſt, the dogs were led out from the dog-houſe, and ſlipt. If the deer ſwerved before he got to the pinching-poſt, ſo that his head was judged to be nearer the dog-houſe than the ditch, it was deemed no match, and was to be run again three days after, but if there was no ſuch ſwerve, and the deer ran ſtraight until he went beyond the pinching-poſt, then that dog which was neareſt the deer, (ſhould he ſwerve) gained the conteſt; if no ſwerve happened, then that dog which leapt the ditch firſt was the victor; if any diſputes aroſe, they were referred to the articles of the courſe, and determined by the judges.

In courſing deer in the foreſt or purlieu, two ways were uſed; the one courſing from wood to wood, and the other upon the lawns by the keepers' lodges. In the firſt, ſome hounds were thrown into the cover to drive out the deer, while the greyhounds were held ready to be ſlipt where the deer was expected to break; if the deer was not of a proper age or ſize, the dogs were not let looſe; and if, on the other hand, he broke at too great diſtance, or was otherwiſe deemed an overmatch for one brace, it was allowable to way-lay him with another brace of freſh greyhounds.

For the courſing upon the lawn, the keeper had notice given him, and he took care to lodge a deer fit for the purpoſe, and by ſinking the wind of him, there was no danger of getting near enough to ſlip the greyhounds, and having a fair courſe.

In courſing the fox, no other art was neceſſary but to get the wind, and ſtand cloſe on the outſide of the wood, where he was expected to come out, and to give him law enough, or he inſtantly returned back to the cover; the ſloweſt greyhounds were ſpeedy enough to overtake him; and all the hazard was, the fox ſpoiling the dog, which frequently happened; for the moſt part the greyhounds uſed for this courſe were hard-bitten dogs, that would ſeize any thing.

The old couplets that deſcribed this ſpecies of dogs, were exact in the points they recommended as neceſſary to form a complete greyhound.

Head like a ſnake,
Neck'd like a drake,
Back'd like a beam,
Sided like a bream,
Tailed like a rat,
And footed like a cat.

In chooſing a whelp, the choice formerly was governed by the weight, and that which was the lighteſt, was generally thought to prove the nimbleſt and beſt. The rawboned, lean, looſe made, and unſeemly whelps in every joint, grew up well-ſhaped dogs; whereas thoſe that after three or four months appeared round, cloſe truſſed, and well built in every part, were not worth the rearing, ſeldom proving ſwift or comely. It was alſo an obſervation in ancient times, that the bitches were commonly more ſpeedy than the dogs, and this remark is ſtill made by thoſe who have had the beſt opportunities of deciding upon the ſubject.

For courſing the hare the plan was formerly to find one ſitting, if poſſible, and if a hare ſat near a cover, with a fair field behind her, the company ſtationed themſelves ſo as to force her to the champaign, for it is remarked that a hare ſeldom takes the ſame way that her head points when in her form.

The laws of courſing were eſtabliſhed by the duke of Norfolk in queen Eliſabeth's reign, and which were agreed to by the nobility and gentry who then followed the diverſion, and have been always held authentic.

Courſing has apparently loſt nothing of its value in the eye of the ſportſman, however it may have ſuffered in the ſplendour which accompanied it when honoured with the royal preſence in former ages. It is an amuſement much in vogue at the preſent period.

THE UTILITY OF WORMING DOGS.

[From the Same.]

THE prevention of the direful effects of canine madneſs ſeems to have been attempted in the early ages, to accompliſh this, Pliny recommends the worming of dogs, and from his time to the preſent, it has moſt deſervedly had its advocates. Very ſtrong proofs have been adduced of its utility, nor is it natural to imagine, ſo eaſy and affective an operation would have been omitted, had not more virtue been attributed to it, than it really poſſeſſes, and wherein it failed; the abſolute prevention of madneſs was ſaid to be the conſequence, whereas the fact was and is, that taking out the worm, has nothing to do with annihilating the diſorder, although it will moſt certainly hinder the dog ſeized with it, from doing any hurt to man or beaſt. A late author aſſerts he had three dogs that were wormed, bit by mad dogs at three ſeveral periods, yet notwithſtanding they all died mad, they did not bite nor do any miſchief; that being determined to make a full experiment, he ſhut one of the mad dogs up in a kennel, and put to him a dog he did not value, the mad dog often run at the other to bite him, but his tongue was ſo ſwelled, that he could not make his teeth meet; the dog was kept in the kennel until the mad one died, and was purpoſely preſerved for two years afterward, to note the effect, but he never ailed any thing, although no remedies were applied to check any infection that might have been received from the contact of the mad dog.

The compiler has had various opportunities of proving the uſefulneſs of worming, and inſerts three of the moſt ſtriking inſtances, under the hope of inducing its general practice.

A terrier bitch went mad that was kept in the kennel with forty couple of hounds, not a ſingle hound was bitten, nor was ſhe ſeen to offer to bite. The bitch being of a peculiar ſort, every attention was paid to her, and the gradations of the diſeaſe (which were extremely rapid) minutely noted, the hydrophobia was faſt approaching before ſhe was ſeparated from the

Lime Castle, Kent.

hounds, and ſhe died the ſecond day after; at firſt warm milk was placed before her, which ſhe attempted to lap, but the throat denied its functions; from this period ſhe refuſed all trial to eat or drink, ſeldom roſe up, or even moved, the tongue ſwelled very much, and long before her death, the jaws were diſtended by it.

A ſpaniel was obſerved to be ſeized by a ſtrange dog, and was bit in the lip, the ſervant who ran up to part them, narrowly eſcaped, as the dog twice flew at him; a few minutes after the dog had quitted the yard, the people who had purſued, gave notice of the dog's madneſs, who had made terrible havock in a courſe of ten miles from whence he had ſet off. The ſpaniel was a great favourite, had medicine applied, and every precaution taken; upon the fourteenth day he appeared to loath his food, and his eyes looked unuſually heavy, the day following he endeavoured to lap milk, but could ſwallow none; from that time the tongue began to ſwell, he moved himſelf very ſeldom, and on the third day he died; for many hours previous to his death, the tongue was ſo enlarged, that the fangs or canine teeth, could not meet each other by upward of an inch.

The hounds were ſome years after parted with, and were ſold in lots, a madneſs broke out in the kennel of the gentleman who purchaſed many of them, and although ſeveral of theſe hounds were bitten and went mad, only one of them ever attempted to bite, and that was a hound from the duke of Portland's, who in the operation of worming, had the worm broke by his ſtruggling, and was ſo troubleſome that one half of it was ſuffered to remain; the others all died with ſymptoms ſimilar to the terrier and the ſpaniel, viz. a violent ſwelling of the tongue, and a ſtupor rendering them nearly motionleſs, and both which ſymptoms ſeemed to increaſe with the diſeaſe.

The idea, that the worming prevents a dog from receiving the infection when bitten, or breeding the diſorder in his own conſtitution ſhould be exploded; but the foregoing facts ſhow how far it may be recommended for the reſtriction of a malady horrid in its effects where human being is concerned, and which to the ſportſman and the farmer, is attended with ſuch dangerous and expenſive conſequences.

ACCOUNT OF LIME CASTLE IN KENT.

With an ENGRAVING *of that ancient* EDIFICE.

IN the Roman hiſtory of Britain, The *Portus Lemanis* was a harbour of note. It was the only one which the Romans had on the ſouthern ſhore of Kent. The river Limené, which now runs in a different direction, then fell into the ſea at this port. A caſtle incloſing an area of about ten acres was by the Romans conſtructed here. A military road or *ſtratum*, from which the Hundred to which Lime belongs, has ſtill its name of *Street*, a work of the Romans, paſſed hence to Canterbury. A body of troops was permanently ſtationed in the caſtle. Under the protection of that caſtle, and by the advantages of the haven, *Limené*, as it was then called, grew to be a town of ſome importance. The tide then flowed up the mouth of the river, to the foot of the hill on which the caſtle was built. This port is mentioned in the geography of Ptolemy, under the name of λιμην. In the Itinerary, or Book of Roads, ſaid to have been written about the era of the *Antonini*, it is named *Portus Lemanis*.

In regard to the origin of the name, we may remark a fact which has been overlooked by Leland, Lambard, Camden, and Haſted, whoſe authorities have been conſulted in the preparation of this account. The name of *Leman* ſeems to imply, that the ſea had already begun to form a *ſtagnation* before this port, at the time when

that was impoſed. *Leman*, and *Lomon*, in the Celtic language have, as it ſhould ſeem, the ſame common meaning, and are derived from the ſame radical word with the Greek Λιμνη, which ſignifies a *lake*, *pool*, or *marſh*. Thus the lake Lauſanne, or Geneva, was named anciently, *Lacus Lemannus*: *Long-lomond* is the name of a famous lake in the northweſt of Scotland; and Λιμνη occurs in the Greek hiſtorians, as an appellation frequently ſubjoined to the proper name, in order to diſtinguiſh any ſtagnation formed in the courſe of a great river, or at the bottom of a bay on the ſea-coaſt. *Leman*, or *Lomon*, ſhould, therefore, ſeem to have been the Britiſh name of the river, and the harbour impoſed before the Romans viſited the iſle, and intended to intimate that the branch of the river Rother, if not the entire river, then here entering the ſea, flowed with a languid, ſtagnant courſe, and that thoſe ſands and mud had even then begun to accumulate, which afterward filled up the port.

The caſtle appears to have been of a ſquare form, with round towers at the angles. The walls were prodigiouſly thick, and were formed of rubble-ſtone and pebbles ſtrongly cemented with mortar, faced with bricks, and ſtrengthened in their interior thickneſs with a double row of Roman tiles laid at every interval of five feet from the baſe to the ſummit of the wall. They have gradually crumbled down; and ſome of the remains lie in maſſy fragments on the eaſt and weſt ſides of the hill. At its ſummit it is believed to have been a watch tower, one of five, which were built by the Romans on theſe coaſts, in the reign of Theodoſius the younger, in order to watch the motions of the Saxon pirates. At the northweſt corner of the hill, remains alſo a part of a round tower, filled up with rubbiſh within, and having an exterior facing of ſquared ſtones. The remains of the old caſtle, have now, from the inhabitants of the neighbourhood, the name of Stutfall-caſtle. Roman coins have been formerly found among them.

Soon after the Saxon conqueſt of Britain, the port of Lime ſeems to have been ſo filled up with ſands, that it remained no longer acceſſible to ſhipping. Weſt Hythe became then the port for that trade which belonged before to Lime. The further retreat of the ſea, after ſome time, deprived alſo Weſt Hythe of its advantages as a harbour.

A new edifice, whether for military and civil, or rather for religious purpoſes, appears to have been built here in the Saxon times.

Even under the Norman kings of England, Lime continued to be ſtill a place of ſuch note, that the lord-warden of the *Cinque Ports* uſed here to hold his courts. The buildings repreſented in the view, had then, probably, for the greater part their origin. Thoſe courts were held by the warden of the Five Ports, ſo late as in the reign of queen Eliſabeth.

Since that time, the town has remained an inconſiderable village, as it had before become. The buildings which appear in the view, have continued to be inhabited, more or leſs, entirely. They have the name of the *Caſtle*, or the *Court-lodge*. The archdeacon of Canterbury has here his reſidence. The pariſh church is adjacent.

THOUGHTS AND MAXIMS.

[By the late M. Maleſherbes.]

MALESHERBES was deſcended from a family in France, which held for nearly two centuries the moſt eminent offices in the profeſſion of the law, and was for more than a century and a half diſtinguiſhed by its culture and patronage of literature. He was born in 1721; was ſucceſſively counſellor in the parliament of Paris; firſt preſident in the court of ſupplies,

and inſpector of the preſs, ſecretary of ſtate for the department of Paris, and defender of Lewis the ſixteenth on his trial. He was the friend of Rouſſeau, whom he endeavoured in vain to ſave from perſecution. After retiring from the office of ſecretary of ſtate in 1776, he viſited England and the other countries of Europe, the moſt diſtinguiſhed for good government and civility. He ſpent his time, after his return, chiefly in the proſecution of experiments in agriculture at his country-ſeat. When he heard that his ſovereign's life was threatened under the forms of a trial, he willingly offered himſelf for that prince's defender, though with a knowledge of the danger into which he ſhould thus run. He ſoon after periſhed, with three of his children on the ſcaffold, but without a crime. The following are ſome of the moſt remarkable ſentiments in his writings.

Some maxims are deſpiſed, becauſe they are ſo common, that we hear them from every perſon's mouth. Yet this very commonneſs is the beſt proof of their utility and truth.

The moſt ſtriking truths are uſually the moſt ſimple.

One error, the ſource of many more, and as ſhould ſeem very common among mankind, is that of forming a judgment rather by the name, than by the thing which it denotes, ſo that what is condemned under one name, is under another approved.

The human intellect ſeems as if it could not hold more than a certain quantity of truth. But it keeps always a corner for error.

The effect of falſehood may be produced, without uttering one word that is falſe. We ſhould ſpeak, not merely the truth, but the whole truth. I have read a memoir, of which the purport was utterly falſe, though every one of its facts was true. Thoſe were only the facts which made againſt the party that was not in the wrong.

A man of ingenuous worth at a court, is a ſtrange plant, which muſt be devoured by inſects before it can be naturalized.

Pride aſſumes at times the guiſe of modeſty. The concealment is not unſkilful, but it is quickly ſeen through.

Nothing can be more ill judged, than for a great man to mount upon ſtilts.

Extravagant and fantaſtic peculiarities of humour and conduct have become ſo common, that they ceaſe to be taken notice of. Nothing is now more ſingular, than plain good ſenſe.

You ſhall ſee ſome men ſucceed as ill in the world, by the arts of vice, as others do by virtue.

Why give a modeſt name to a baſe action, if not for a paſſport by which it may make its way and its fortune among the better part of ſociety?—The falſe varniſh of language will be at its height of improvement, when it ſhall admit, that every thing may be openly talked of, without indelicacy or ſhame.

There is, in truth, no ſort of equality with others, but that of virtue, which a man can in all circumſtances command for himſelf.

How mean the pride of ambition! which, while it aſpires to greatneſs, crouches to crawl through the mud!

Men's minds are, in general, ſo completely ſubjugated by the hope of a deſpot's favours, that he can have little or no reaſon to enſlave them further by violence.

Courage is, in the eſtimation of the great, an offence; reſpect the profeſſion of ſervility.

Honour begins at laſt to refuſe honours.

While virtue acts, calumny looks on; and then ſhe awaits the event. Be that event unfortunate, and ſhe ſhall inſtil her venom into the very intentions of the object ſhe hates.

If calumny faſten only on a man's words, his actions cannot but have been very innocent.

Hatred will ſometimes beſtow praiſe for the ſake of adding calumny as a rider to it.

A rogue deteſts an honeſt man, not for any harm done to himſelf, but for the good done by him to others.

A man of genuine rectitude is oppoſed by envy, and expects to meet ingratitude; but follows, nevertheleſs, the dictates of his conſcience, and the intrepid emotions of his heart.

To be truly beneficent, requires ſingular delicacy of taſte. This ſpecies of taſte is, in its perfection, ſtill more rare than exquiſite taſte in the fine arts.

It may poſſibly be true, as is often alleged, that generoſity is but a refinement of ſelfiſhneſs. But ſurely no artifice of ſelfiſhneſs can be more ſkilful, than, for a few bits of metal, to purchaſe the raviſhing joy of relieving misfortune.

The pleaſure of vanity is but momentary. That which follows a good deed is leſs tranſient. It continues to warm the heart, even when nature is dead within us to the ſenſe of all other joy.

I have been told of an old man of ſeventy years, who had not one pleaſing recollection. But I can ſcarce think that there ever was ſuch a man.

Whether is it ſociety, or the man himſelf, that gains the moſt, by the death of the robber who periſhes on the ſcaffold?

Gayety is a pure and copious ſpring, of which the waters are never exhauſted, and flow ever with a briſk agitation, and a lively murmur. Wit is a ſtream forced artificially up into the air. Its ſallies are ſurpriſing; but they are ſoon at an end.

The country is a fine woman, who uſes no artifices of coquetry. She does not bewitch us at firſt ſight. But the more you know, the more you are enamoured of her. And when once ſhe wins a heart, it is hers for ever.

In town, the acuteneſs, in the country, the ſenſibility of the ſoul improves.

When the ſoul is baſely mean, the underſtanding grows cunning.

Thoſe who flee from the world, are commonly perſons who can be of little uſe in it.

He who goes to ſpeak in public, ſhould firſt be ſure of two things; that he has good ſenſe himſelf; and that his hearers have good ſenſe.

We ſhould be able to accompliſh much more, if we did not ſo haſtily conclude that which we find difficult to be impoſſible.

Sentiment has greater powers of perſuaſion than reaſoning. The latter ſtrives only to ſatisfy judges: the former ſeduces accomplices.

Men are fated to diſpute for ever about even the ſimpleſt ideas; for there are perhaps no two men who conceive any one of thoſe preciſely in the ſame manner.

It is not uncommon to ſee men who are ſeparately of the ſoundeſt judgment and the greateſt ability, forgetting, when they are in a body, the principles of their private good ſenſe, and following the impulſe given by thoſe who are the hotteſt headed among them.

In morality it is eaſier to give, than to govern an impulſe.

The people are extremely liable to miſtake their own humour. They frequently miſtake reſtleſſneſs and impatience for love of liberty; while theſe are produced from the whim of changing maſters.

How corrupt that people, whoſe firſt law is politeneſs!

What acuteneſs of diſcrimination is requiſite to diſcern the point where prudence ends, and diſſimulation begins!

A great part of our common diſcourſe is in exact contradiction to what we think.

We ſacrifice friendſhip, the deareſt and rareſt thing there is on earth—to what falſe gods?—To vanity and intereſt.

Who is a traitor? A man who for a little money ſells the approbation of his own heart, the approbation of his neighbours, the approbation even of the man who profits by his treachery.

No miſchief is leſs eaſily ſuppreſſed, than that contagion of immorality, which in ſome unhappy ſeaſons infects whole nations, and deſtroys the very bonds of ſocial union.

Obſervations on APHIDES, *chiefly intended to ſhow that they are the principal Cauſe of* Blights *in* Plants, *and the ſole Cauſe of the* Honey-dew. *By the late Mr.* William Curtis, F. L. S.

[Read before the Linnean Society, May 6, 1800.]

THE Aphis, or Blighter, as we now for the firſt time venture to call it, from its being the moſt general cauſe of what are termed blights in plants, forms a highly intereſting tribe of inſects. In point of number, the individuals of the ſeveral ſpecies compoſing it ſurpaſs thoſe of any other genus in this country *.

Theſe inſects live entirely on vegetables. The loftieſt tree is no leſs liable to their attacks than the moſt humble plant. They prefer the young ſhoots on account of their tenderneſs, and on this principle often inſinuate themſelves into the very heart of the plant, and do irreparable miſchief before they are diſcovered.

But for the moſt part they beſet the foliage, and are always found on the under ſide of the leaf, which they prefer, not only on account of its being the moſt tender, but as it affords them protection from the weather, and various injuries to which they would otherwiſe be expoſed. Sometimes the root is the object of their choice, which, from the nature of theſe inſects, one would not *à priori* expect; yet have I ſeen the roots of lettuces thickly beſet by them, and the whole crop rendered ſickly and of little value: but ſuch inſtances are rare. They rarely alſo attach themſelves to the bark of trees, like the aphis ſalicis, which being one of our very largeſt ſpecies, and hence poſſeſſing ſuperior ſtrength, is enabled to penetrate a ſubſtance harder than the leaves themſelves.

As among caterpillars we find ſome that are conſtantly and unalterably attached to one or more particular ſpecies of plants, and others that feed indiſcriminately on moſt ſorts of herbage; ſo it is preciſely with the aphides: ſome of them are particular, others more general feeders.

As they reſemble other inſects in the above reſpect, ſo do they alſo in being infinitely more abundant ſome years than others; and though, with regard to certain inſects, this variation (ſometimes wonderful in the extreme, as in the brown-tail moth which ravaged the quickſet hedges in 1782) is not eaſily accounted for, it is ſolved without much difficulty as to the aphis, as will be ſhown in the ſequel. In the year 1793 they were the chief, and in 1798 the ſole, cauſe of the failure of the crop of hops. In 1794, a ſeaſon almoſt unparalleled for drought, the hop was perfectly free from them, while peas and beans, eſpecially the former, ſuffered very much from their depradations. Beans were in 1798 almoſt wholly cut off by them; indeed they ſuffer more or leſs every year by a black ſpecies of aphis, particularly the latter crops. To potatoes, and even to corn, we have known them ſome years prove highly detrimental, and no leſs ſo to melons. To plants in ſtoves, greenhouſes and frames, where, from the warmth and ſhelter afforded them, a preternatural multiplication takes place, they prove extremely injurious, and many a rare and valuable plant alſo in the open ground of our botanic gardens falls a victim to theſe general depredators. Seeing, therefore, that neceſſaries as well as luxuries of life are ſo materially affected by the inſects of this genus, an attempt to aſcertain ſome of the curious and important facts relative to their hiſtory,

* Reaumur, conſidering each aphis as bringing forth ninety young, calculates that in five generations the produce from a ſingle one would be five thouſand nine hundred and four million nine hundred thouſand.

and to make them more generally known, will not, we truſt, be unacceptable to the public. Such inquiries may poſſibly lead to the means of obviating the injuries they occaſion; and if they fail in this, they may tend at leaſt to correct the erroneous notions entertained of blights, not by the vulgar and illiterate merely, but even by perſons of education, who may frequently be heard to maintain that theſe inſects are brought by the eaſt winds; that they attack none but ſickly plants; with other notions, all as falſe in fact as unphiloſophical in principle.

Locuſts and caterpillars, famed for their devaſtations, are furniſhed with ſtrong jaws, by means of which they crop and wholly devour the foliage of plants. The aphis deſtroys them in a different way. Inſtead of jaws and teeth it is provided with a hollow-pointed proboſcis or trunk, which, when the animal is not feeding, folds under its breaſt. With this inſtrument it pierces the plant, and imbibes its juices to ſupport itſelf; but theſe juices being eſſential to the life of the plant, it follows that, when they are drawn off, the plant, exhauſted, flags, and periſhes, being in fact literally bled to death by theſe leech-like animalcules. Yet, ſo tenacious of life are plants in a healthy ſtate, that they in general only fall victims to the continued attacks of theſe inſects when in immenſe numbers. But it moſt commonly happens that if they do not wholly deſtroy a plant they deface it, and a ſmall number of aphides are ſufficient to produce this effect. The leaves of ſuch trees and plants as have a firm texture and ſtrong fibres, though infeſted with theſe inſects, preſerve their form; but the more tender foliage of others, and flowers in general, cannot bear their punctures without curling up and becoming diſtorted; in conſequence of which they loſe their beauty entirely and irretrievably. The cultivators of plants, eſpecially in ſtoves and green-houſes, cannot be too much on their guard againſt the whole tribe of aphides; for with what pleaſure can a large or choice collection be viewed, when there is ſcarcely a plant but what exhibits ſymptoms of diſeaſe occaſioned by vermin?

As the ſpecies of this genus are very numerous, and afford but few marks of diſtinction, Linnæus has contented himſelf with giving moſt of them trivial names, according to the particular plant on which they are found: a cloſe attention to them will, however, diſcloſe more diſtinctive characters than naturaliſts are aware of.

Aphides are deſcribed by the beſt informed authors as being generally oviparous and viviparous at different periods of the ſame year. Monſ. Bonnet, who had the honour of making this diſcovery in 1740, ſays that in the ſummer the females are viviparous, but toward the middle of autumn they lay real eggs. De Geer obſerves, that the females of all the aphides he had ſeen, conſtantly laid eggs, intended to preſerve the ſpecies during winter, and that he is therefore inclined to believe that the ſame takes place in all aphides whatever. From the 24th of September to the 6th of December following, during which time Fahrenheit's thermometer had been as low as 29, I found the aphis ſalicis to be conſtantly viviparous, though from the inclemency of the weather very few of theſe inſects at the period laſt mentioned remained on the trees, and thoſe few were ſoon after entirely cut off by the unuſual cold that took place, the thermometer falling to 4 degrees below 0 —Other aphides are oviparous or viviparous according to the temperature of the air to which they are expoſed. In very cold weather they are oviparous, for this obvious reaſon: the eggs are capable of reſiſting cold more powerfully than the young. On the 22d of November ſame year as above, I found a conſiderable number of eggs which had been depoſited in ſome auricula plants by a

ſmall green aphis, which infects plants very generally *, while the ſame ſpecies, on a geranium that I kept within doors, produced young. In mild winters I have obſerved, in the month of January, the ſame ſpecies of aphis in graat numbers on various ſpecies of primula without doors, and all the females viviparous. Theſe are facts which prove that all aphides are not oviparous and viviparous at the ſame ſeaſon, but that ſome may be wholly viviparous; that all ſuch as are both oviparous and viviparous do not lay eggs toward the middle of autumn, nor at all during the winter, unleſs a certain degree of cold takes place.

Moſt people will think it a matter of very little moment to mankind whether an aphis comes into the world with its head or its heels foremoſt: —it may be ſo; yet, as nature's hiſtorian, it is perhaps incumbent on us to notice this circumſtance. The young aphis then is uſhered into the world with its feet foremoſt, and this act of parturition, unimportant as it may appear, ſerves to diſplay the wiſdom of the all-provident author of nature. The female aphis is uſually delivered of its offspring as it ſits cloſe to the bark of the tree, but not ſuddenly and all at once. Two thirds of the body of the young one is quickly protruded. When it gets ſo far, the power of expulſion ceaſes, and the delivery proceeds ſlowly. Time is thus given to the young one to learn the uſe of its legs, which it ſoon kicks about briſkly, and the firſt ſervice it employs them in is to clean away a white ſubſtance, the remains, perhaps, of the membrane in which it was enveloped in the womb. But what is of greater conſequence is, that it is enabled by their uſe to cling faſt to the bark of the tree as ſoon as it is brought forth, and thus to obtain its neceſſary nutriment.

Of ſome of the circumſtances attendant on the propagation of theſe minute animals accounts are related, deviating ſo wonderfully from the common courſe of nature, that they could not be credited, were not the authors of them known to be men of the niceſt and moſt accurate obſervation and of the ſtricteſt veracity. On this part of the ſubject I have little to ſay from my own obſervation; but as ſome account of ſo extraordinary a part of their hiſtory may be expected in a paper of this ſort, I ſhall ſtate the facts, briefly obſerving that neither in the aphis ſalacis, which at times I have watched with great attention, nor in any other ſpecies of aphis, did I ever obſerve any ſexual intercourſe to take place. Whether this has ariſen from the extreme infrequency of ſuch a procedure, or from my not having obſerved theſe inſects at a proper time of the year, I know not; but, moſt undoubtedly, ſuch intercourſe does not take place between the different ſexes of aphis as in other inſects. Yet Monſ. Bonnet, who may be ſaid to have almoſt taken up his abode with theſe inſects, informs us that he has frequently noticed ſuch connexion, which he deſcribes as taking place at one certain time of the year only; and that, from a female thus impregnated, many ſucceſſive generations will be produced without any further impregnation. He took the aphides as ſoon as brought forth, and kept each individual ſeparate. The females of ſuch brought forth abundance of young. He took the young of theſe and treated them preciſely in the ſame manner. The produce was the ſame; and thus he proceeded to the ninth generation with the ſame ſucceſs: and ſo far from conſidering that as the utmoſt extent of the effect, he thinks it might be carried on to the thirtieth generation.

* Theſe eggs were laid in ſmall, irregular groups, on the upper as well as on the under ſide of the leaves; they were of a perfectly black colour, and very viſible to the naked eye. I found afterward that the eggs when recently excluded were green, from which colour they gradually changed to that which rendered them ſo conſpicuous. They were ſlightly attached to the leaf.

In moſt ſpecies of aphides both males and females acquire wings at certain ſeaſons; but in this reſpect they are ſubject to great variation, there being ſome males and ſome females that never have wings; again, there are ſome females that become winged, while others of the ſame ſpecies do not.

In the quality of the excrement voided by theſe inſects, there is ſomething wonderfully extraordinary. Were a perſon accidentally to take up a book in which it was gravely aſſerted that in ſome countries there were certain animals which voided liquid ſugar, he would ſoon lay it down, regarding it as a fabulous tale, calculated to impoſe on the credulity of the ignorant; and yet ſuch is literally the truth.

The ſuperior ſize of the aphis ſalicis will enable the moſt common obſerver to ſatisfy himſelf on this head. On looking ſtedfaſtly for a few minutes at a group of theſe inſects while feeding on the bark of the willow, one perceives a few of them elevate their bodies, and a tranſparent ſubſtance evidently drop from them, which is immediately followed by a ſimilar motion and diſcharge like a ſmall ſhower from a great number of others. At firſt I was not aware that the ſubſtance thus dropping from theſe animals at ſuch ſtated intervals was their excrement, but was convinced of its being ſo afterwards; for, on a more accurate examination, I found it to proceed from the extremity of the abdomen, as is uſual in other inſects. On placing a piece of writing-paper under a maſs of theſe inſects, it ſoon became thickly ſpotted; holding it a longer time, the ſpots united from the addition of others, and the whole ſurface aſſumed a gloſſy appearance. I taſted this ſubſtance, and found it to be as ſweet as ſugar. I had the leſs heſitation in doing this, having obſerved that waſps, ants, flies, and inſects without number, devoured it as quickly as it was produced: but, were it not for theſe, it might no doubt be collected in conſiderable quantities, and, if ſubjected to the proceſſes uſed with other ſaccharine juices, might be converted into the choiceſt ſugar or ſugar-candy. It is a fact alſo, which appears worthy of noticing here, that, though the waſps are ſo partial to this food, the bees appear totally to diſregard it.

In the height of ſummer, when the weather is hot and dry, and aphides are moſt abundant, the foliage of trees and plants (more eſpecially in ſome years than others) is found covered with, and rendered gloſſy by, a ſweet clammy ſubſtance, known to perſons reſident in the country by the name of honey-dew; they regard it as a ſweet ſubſtance falling from the atmoſphere, as its name implies.

The ſweetneſs of this excrementitious ſubſtance, the gloſſy appearance it gave to the leaves it fell upon, and the ſwarms of inſects this matter attracted, firſt led me to imagine that the honey-dew of plants was no other than this ſecretion, which further obſervation has ſince fully confirmed. Others have conſidered it as an exudation proceeding from the plant itſelf. Of the former opinion we find the rev. Gilbert White, one of the lateſt writers on natural hiſtory that has noticed this ſubject *.

But that it neither falls from the atmoſphere, nor iſſues from the plant itſelf, is eaſily demonſtrated. If it fell from the atmoſphere, it would

† 'June 4th, 1783. Vaſt honey-dews this week. The reaſon of theſe ſeems to be that in hot days the effluvia of flowers are drawn up by a briſk evaporation, and then in the night fall down with the dews, with which they are entangled.

'This clammy ſubſtance is very grateful to bees, who gather it with great aſſiduity; but it is injurious to the trees on which it happens to fall, by ſtopping the pores of the leaves. The greateſt quantity falls in ſtill, cloſe weather; becauſe winds diſperſe it, and copious dews dilute it, and prevent its ill effects. It falls moſtly in hazy, warm weather.' See White's Naturaliſt's Calendar, p. 144.

cover every thing on which it fell indiſcriminately, whereas we never find it but on certain living plants and trees. We find it alſo on plants in ſtoves and green-houſes covered with glaſs. If it exuded from the plant, it would appear on all the leaves generally and uniformly; whereas its appearance is extremely irregular, not alike on any two leaves of the ſame tree or plant, ſome having none of it, and others being covered with it partially,

But the phænomena of the honey-dew, with all their variations, are eaſily accounted for by conſidering the aphides as the authors of it. That they are capable of producing an appearance exactly ſimilar to that of the honey-dew, has already been ſhown. As far as my obſervation has extended, there never exiſts any honey-dew but where there are aphides; ſuch, however, often paſs unnoticed, being hid on the under ſide of the leaf. Wherever honey-dew is obſervable about a leaf, aphides will be found on the under ſide of the leaf or leaves immediately above it, and under no other circumſtances whatever. If by accident any thing ſhould intervene between the aphides and the leaf next beneath them, there will be no honey-dew on that leaf. Thus then we flatter ourſelves to have incontrovertibly proved that aphides is the true and only ſource of the honey-dew.

We have found that when the ſaccharine ſubſtance has dropped from aphides for a length of time, as from the aphis ſalicis in particular, it gives to the ſurface of the bark, foliage, or whatever it has dropped on, that ſooty kind of appearance which ariſes from the exploſion of gun-powder, which greatly diſfigures the foliage, &c. of plants. It looks like, and is ſometimes miſtaken for, a kind of black mildew. We have ſome grounds for believing that a ſaccharine ſubſtance, ſimilar to that of the aphis, drops from the cocus alſo, and is finally converted into the ſame kind of powder.

In moſt ſeaſons the natural enemies of the aphides are ſufficient to keep them in check, and to prevent them from doing any eſſential injury to plants in the open air. But ſeaſons ſometimes occur, very irregularly indeed, on an average, perhaps, once in four or ſix years, in which they are multiplied to ſuch an exceſs, that the uſual means of diminution fail in preventing them from doing irreparable injury to certain crops.

In ſevere winters we have no doubt but aphides are very conſiderably diminiſhed; in very mild winters we know they are very conſiderably increaſed; for they not only exiſt during ſuch ſeaſons, but continue to multiply. Their enemies, on the contrary, exiſt, but do not multiply, at leaſt, in the open air, during ſuch periods; and thus the aphis gets the ſtart of them, and acquires an aſcendency, which once acquired, is not eaſily overcome by artificial means, upon a large ſcale, at leaſt, in the open air. Vain would be the attempt, to clear a hop-garden of theſe pernicious vermin, or to reſcue any extenſive crop from their baneful effects. Violent rains attended with lightning have been ſuppoſed to be very effectual in clearing plants of them; but in ſuch caſe more is to be attributed to the plants being refreſhed and made to grow by the rain, of which they ſtood in need, than to any deſtruction of the aphides themſelves, which, on an accurate examination, will be found to be as plentiful after ſuch rains as they were before; nor is wet ſo injurious to theſe inſects as many imagine, as is evident from the following experiment: On the 12th of May 1799, I immerſed in a glaſs of water the footſtalks of a leaf of conſiderable length, taken from a ſtove plant, beſet with aphides of a dark lead colour, which were feeding on it in great numbers. On immerſion they did not quit the ſtalk, but immediately their bodies aſſumed a kind of luminous appearance from the minute bubbles of air which iſſued from them. They were put under

water at a quarter paſt ten the next morning, having continued immerſed ſixteen hours. On placing them in the ſun-ſhine, ſome of them almoſt immediately ſhowed ſigns of life, and three out of four at leaſt ſurvived the immerſion. One of the ſurvivors, a male, very ſoon became winged, and another, a female, was delivered of a young one. Many years before this experiment, with a view to deſtroy the aphides which infeſted a plant in my green-houſe, I immerſed one evening the whole plant, together with the pot in which it grew, in a tub of water. In the morning I took out the plant, expecting with certainty to find every aphis dead; but to my great ſurpriſe they ſoon appeared alive and well; and thus, in addition to the other extraordinary phænomena attendant on theſe inſects, we find that they are capable of reſiſting the effects of immerſion in water for a length of time. When taken from the plant on which they feed, and kept under water, they do not ſurvive ſo long; their ſtruggling in that caſe perhaps exhauſts them ſooner. This part of the ſubject might be puſhed much further: it is ſufficient for our purpoſe to have ſhown that wet is not hurtful to them as is generally imagined.

Though no mode of deſtroying aphides will perhaps ever be deviſed on a large ſcale in the open air by artificial means, we can accompliſh it moſt effectually when they infeſt plants in ſtoves, green-houſes, and frames, or in any ſituation in which we can envelop them for a certain time in clouds of ſmoak. Powders or liquids, however fatal to aphides, muſt ever be ineffectual, from the trouble or difficulty of applying them ſo that they ſhall come in contact with thoſe inſects, ſituated, as they uſually are; but in this reſpect ſmoke has every advantage, it penetrates and pervades their inmoſt receſſes. The ſmoke of common vegetables, however powerful, is found to be inadequate to their deſtruction, and hitherto no other than that of tobacco is found to be effectual. That, judiciouſly applied, completely anſwers the purpoſe, without injuring the plant. It moſtly happens in well managed houſes that a few plants only are infeſted with aphides: in ſuch a caſe, the ſmoking of the whole houſe is a buſineſs of unneceſſary expence and trouble; and we would recommend to perſons who have large collections to make uſe of a box of a commodious form that ſhall hold about a dozen plants of various ſizes, to be uſed as a ſort of hoſpital, in which infeſted plants may be ſmoked ſeparately, and the inſects more effectually deſtroyed, becauſe it may be rendered more perfectly ſmoke-tight.

To prevent the calamities which would infallibly reſult from the accumulated multiplication of the more prolific animals, it has been ordained by the Author of Nature, that ſuch ſhould be diminiſhed by ſerving as food for others. On this principle, we find that moſt animals in this predicament have one or more natural enemies. The helpleſs aphis, the ſcourge of the vegetable kingdom, has to contend with many. The principal are the coccinella, the ichneumon aphidum, and the muſca aphidivora. Such as are unacquainted with the hiſtory of inſects will learn with ſome ſurpriſe that the coccinella*, a common inſect well known even to children by the name of the lady-bird, is one of the greateſt deſtroyers of the aphides, which indeed are its only food, its ſole ſupport, as well in its perfect as in its larva, or grub ſtate. During the ſeverity of winter this inſect ſecures itſelf under the bark of trees, or elſewhere †. When the warmth of ſpring has expanded the

* All the different ſpecies of coccinella feed on aphides; the bipuncta, by far the moſt common, does the moſt execution.

† Many are found in houſes; for, early in May 1799, I counted on the window of my common ſitting room, expoſed to the ſun, nineteen of the coccinella bipunctata.

foliage of plants, the female depoſits its eggs on them in great numbers, from whence in a ſhort time proceeds the larva, a ſmall grub of a dark lead colour ſpotted with orange: theſe may be obſerved in the ſummer ſeaſon running pretty briſkly over all kinds of plants; and if narrowly watched, they will be found to devour the aphides wherever they find them. The ſame may be obſerved of the lady-bird in its perfect ſtate. As theſe inſects in both their ſtates are very numerous, they contribute wonderfully to diminiſh the number of aphides. There is a ſaying which humanity has put into the mouths of children in favour of this inſect *, now rendered more ſacred by its great utility, which has happily rendered it a ſort of favourite with them, and contributes uſually to its eſcape from their dangerous clutches. Another moſt formidable enemy to the aphis is a very minute, black and ſlender ichneumon fly, the ichneumon aphidum of Linnæus. The manner in which this inſect proves ſo deſtructive to the aphis is different from that of the lady-bird. The female ichneumon, of which numbers may be found where aphides are in plenty, ſettles on a ſtalk, or leaf, more or leſs covered with them, marches ſlowly over their bodies, feeling with its antennæ as it proceeds for one of a ſuitable ſize and age; which having diſcovered, it puſhes forward its body, or abdomen, in an incurved ſtate, and with a fine inſtrument at its extremity, inviſible to the naked eye, punctures, and depoſits an egg in, the body of the aphis; which having done, it proceeds, and lays an egg in a ſimilar way in the bodies of many others. The egg thus depoſited quickly hatches, and becomes a ſmall larva, or maggot, which feeds on the ſubſtance of the aphis, and, having eaten the whole of it, the ſkin excepted, it changes to a pupa, or chryſalis; in which ſtate when it has remained a ſufficient time, it becomes an ichneumon fly, which eats its way out of the aphis, leaving the dry inflated ſkin of the inſect adhering to the leaf, like a ſmall pearl. Such may always be found where aphides are in plenty. We have obſerved different ſpecies of aphides to be infeſted with different ichneumons.

In general the torpid aphis ſubmits quietly to this fatal operation; but we have obſerved ſome of them, eſpecially one that feeds on the ſycamore, which is much more agile than many of this race, endeavoured to avoid the ichneumon with great addreſs.

There is, perhaps, no genus of inſects which in their larva or maggot ſtate feed on ſuch a variety of food as the muſca, or fly. There is ſcarcely a part of nature, either animate or inanimate, in which they are not to be met with. One diviſion of them, called by Linnæus muſcæ aphidivoræ, feeds entirely on aphides. Of the different ſpecies of aphidivorous flies, which are numerous, having moſtly bodies variegated with tranſverſe ſtripes, their females may be ſeen hovering over plants infeſted with aphides, among which they depoſit their eggs, on the ſurface of the leaf. The larva, or maggot, produced from ſuch eggs feeds, as ſoon as hatched, on the younger kinds of aphis; and as it increaſes in ſize, attacks and devours thoſe which are larger. Theſe larvæ are uſually of a pale colour, adhere cloſely to the leaf, along which they ſlowly glide, and are formed very tapering toward the head. When fully grown, they change to a pupa, or chryſalis, attached to the leaf, from whence iſſues the fly. The larvæ of theſe flies contribute their full ſhare to diminiſh the deſpoilers of Flora. To theſe three kinds of inſects, which are the chief agents in the hands of nature

* Lady-bird, lady-bird, fly away home! Your houſe is on fire, your children at home.

for keeping the aphides within their proper limits, we may add a few others which act a ſubordinate part in this neceſſary buſineſs of deſtruction.

The larva of the hemorobius feeds on them in the ſame manner as that of the muſca aphidivora, and depoſits its eggs alſo on the leaves of ſuch plants as are beſet with aphides. The eggs of this hemorobius ſtand on long filaments, which are attached by a baſe to the leaf, and have more the appearance of the filaments of flowers with their antheræ than the eggs of an animal. The number of theſe inſects being comparatively very ſmall, they may be conſidered rather as the caſual invaders of their exiſtence than the main hoſt of their deſtroyers.

The earwig, which is in itſelf no contemptible enemy to plants, makes ſome atonement for its depredations by deſtroying the aphides; eſpecially ſuch as reſide in the curled-up leaves of fruit-trees, and the purſes formed by certain aphides on the poplars and other trees.

Laſtly, we may add as the enemies of theſe creatures, ſome of the ſmaller ſoft-billed birds, which feed generally on inſects, and which may frequently be ſeen buſily employed in picking them from the plants.

When plants aſſume a ſickly appearance, or are disfigured by diſeaſe, from whatever cauſe the diſeaſe may ariſe, they are ſaid to be blighted. Blights originate from a variety of cauſes, the chief of which are unfavourable weather and inſects.

Two opinions prevail very generally in regard to blights: the one, that the inſects which are the cauſe of them are brought from a diſtance by eaſterly winds; the other, that they attach themſelves to none but plants already ſickly. Neither of theſe opinions, as far as I have obſerved, is founded in fact. I am induced, from the numerous obſervations I have made on inſects for a ſeries of years, (in purſuing the cultivation of plants) to conſider the aphis as by far the moſt general cauſe of the diſeaſes diſtinguiſhed by the name of blights. Other inſects, it is true, more eſpecially the larvæ of ſome of the lepidoptera, as thoſe of the phalænæ tortrices, disfigure and do infinite miſchief to plants, by rolling and curling up the leaves. But theſe for the moſt part confine themſelves to certain trees and plants. Their ravages alſo are of ſhorter duration, being confined to the growth of one brood, and they are alſo leſs fatal. It would be no difficult matter for me to fill a volume with obſervations, to which I have been an eye witneſs, of the injuries which plants ſuſtain from inſects; but that would be foreign to my preſent purpoſe, which is to ſhow that the aphis is the grand cauſe of theſe diſeaſes, and to place the *modus operandi*, or the manner in which they effect this buſineſs, in its true light.

We are fully aware that certain gregarious inſects may at particular times riſe up in the air, and, if ſmall and light, be impelled by any wind that may chance to blow at the time; and on this principle we account for that ſhower of aphides deſcribed by Mr. White to have fallen at Selborn. But certainly this is not the mode in which thoſe inſects are uſually diſperſed over a country. The phenomenon is too unuſual, the diſtribution would be too partial; for aphides, while at their higheſt point of multiplication, do not ſwarm like bees or ants, and fly off or emigrate in large bodies; but each male or female aphis, at ſuch periods as they arrive at maturity, marches or flies off without waiting for any other. Yet it may happen that, from a tree or plant thickly beſet with them, numbers may fly off or emigrate together, being arrived at maturity at the ſame moment of time.

Detaching itſelf from the plant, each purſues a different route, intent on the great buſineſs of multiplying its ſpecies; and ſettles on ſuch plants

in the vicinity as are calculated to afford nouriſhment to its young.

The common green aphis, which is ſo generally deſtructive, lives during the winter ſeaſon on ſuch herbaceous plants as it remained on during the autumn, either in its egg or perfect ſtate. If the weather be mild, it muliplies greatly on ſuch herbage; as the ſpring advances, in May the males and females of theſe inſects acquire wings: and thus the buſineſs of increaſe. hitherto confined, is widely and rapidly extended, as the winged aphides, by hop-planters called the fly, may be ſeen from this period very generally ſitting on plants, and floating in the air in all directions.

MEMOIRS *of the* PROGRESS *of the* PHYSICAL SCIENCES *and the* USEFUL ARTS.

A NEW Society, ſimilar in its nature and deſign to our Society of Arts, has been lately inſtituted at Paris. Count Rumford and ſir Charles Blagden were preſent at a late meeting of that ſociety, and have been choſen members of it. The firſt conſul of France has offered a liberal reward for the firſt important diſcoveries which ſhall be made in that country toward the completion of our knowledge of Galvaniſm. Since a reward was granted by parliament to Dr. Carmichael Smith, for his invention for preventing or ſtopping the infection of epidemical fevers by means of nitric acid, the philoſophers of France have zealouſly interpoſed, to claim to their own country the priority in this diſcovery. In a memoir addreſſed to the conſuls, M. Chaptal, the chymiſt, and miniſter of France for domeſtic affairs, has ſtated a deduction of facts to prove, that M. de Morveau-Guyton invented a method of preventing peſtilential infection, by the uſe of muriatic acid, long before Dr. Carmichael Smith had applied nitric acid to the ſame purpoſe; and therefore the merit of the diſcovery remains ſubſtantially with the Frenchman. But by M. Chaptal's reaſonings, that merit ſhould rather be referred to thoſe who firſt employed fumigations of any ſort againſt infection. For the uſe of muriatic acid, in order to ſuch an end, certainly differs not more from fumigations with aromatics, from aſperſions with vinegar, or even from the lighting of great fires to deſtroy infection, than differs the uſe of nitric from that of muriatic acid, to accompliſh the ſame end. In our judgment then, Dr. Carmichael Smith's invention has juſt as good a claim to the praiſe of originality, as has that of De Morveau-Guyton.

It is well known that in Siberia, and on grounds near to the great river Ohio, in North America, have been diſcovered at the diſtance of a number of years backward, ſkeletons more or leſs perfect, of certain gigantic animals of which the living ſpecies are not known now to exiſt on this globe. In the end of April laſt, another ſkeleton of a like gigantic and unknown animal, was accidentally found by workmen digging a trench for a vineyard, in the neighbourhood of Rome. Its thigh bone was found to be in circumference two feet four inches; one of its teeth was in length ſix inches. The whole ſkeleton being negligently handled, crumbled into duſt, ſoon after its expoſure to the air. Such diſcoveries in the ſcience of Natural Hiſtory, may lead at length to ſome important general reſult.

It has been nearly aſcertained with ſufficient preciſion, that native deafneſs is always owing to exceſſive tenſion or extreme relaxation of the tympanum of the ear. This relaxation or exceſſive tenſion has been found to depend on glandular obſtructions; and the uſe of antimony has been therefore propoſed by Dr. Gall, at Vienna, as a remedy, which by reſtoring the proper energies of the

glands, may revive the loſt ſenſe of hearing.

The Society of Arts in London, has offered a hundred and eighty-one præmia, for the moſt ſucceſsful attempts to ſupply ſo many ſpecified deſiderata in Agriculture, Chymiſtry, the Fine Arts, Manufactures, Colonial Improvements, Mechanics, &c.

Mr. Lawrence of Lambeth, in Surry, has lately aſcertained that a tanning liquor may be made juſt as well of ſaw-duſt of oak, as of oak-bark. He has taken care to ſecure to himſelf the property of the invention under a patent-right.

A proceſs of white-waſhing, with a preparation adapted to deſtroy inſects, has been lately imported from Egypt to France, by a Mr. St. Bernard. The preparation is made by adding a few handfuls of common ſalt to every hundred weight of lime. New experiments have been inſtituted at Paris, to aſcertain its efficacy. Should the reſult of theſe prove completely ſatisfactory, a preparation ſo uſeful and ſo ſimple, cannot be too highly valued.

A Mr. Williams of Portſmouth, has lately contrived a peculiar conſtruction of carriages, in which, by means of a rolling ſplinter-bar fixed with collars or eyes to the main ſplinter-bar, the horſes may be inſtantaneouſly diſengaged from the carriage on any ſudden danger.

OF THE SOURCE OF HUMAN HAPPINESS.

[From Eſſays on Miſcellaneous Subjects, by Sir John Sinclair, Bart.]

THE objects of human life may be comprehended under three general heads: 1. Animal, or individual pleaſures; 2. Social gratifications; and, 3. Mental enjoyments: in other words, man may be conſidered as a mere animal; or as one formed for living in ſociety with his fellow-creatures; or as a being, endowed with rational powers, and deſtined for eternity.

I. Animal Pleasures.

As a mere animal, man requires, 1. Food; 2. Clothing; and, 3. Shelter: and nothing ſhould prevent any induſtrious individual, in a well regulated community, from acquiring, by his labour and exertions, theſe indiſpenſable requiſites of comfortable exiſtence.

1. *Food.*—The neceſſity of food, to repair the daily waſte to which the human frame is ſubject, need not be dwelt upon. Without a regular and adequate ſupply of wholeſome ſuſtenance, the ſtrongeſt frame becomes languid, and would ſoon periſh. A regular and adequate ſupply of food, therefore, is the firſt and moſt eſſential of human wants. How that food operates in maintaining the human frame, and how ſuch a number of articles, differing from each other in appearance, in taſte, and in quality, can all contribute to the ſame end, that of nouriſhing and preſerving in their full ſtrength, for any conſiderable ſpace of time, all the various parts of which the body conſiſts, are myſteries, which it can hardly be expected the defective ſtate of human knowledge will ever be able to explain.

But food is not only to be conſidered as eſſential to human exiſtence. The exertion neceſſary to procure it, is alſo to be accounted a ſource of healthful occupation and innocent amuſement; nor is the ſatisfaction to be derived from conſuming that food, to be reckoned altogether unworthy of attention, though too much time and anxiety ought not to be devoted to an object, which, at beſt, can only be viewed in the light of a mere animal gratification.

There is every reaſon to believe, that men at firſt lived principally on the ſpontaneous productions of the earth; or on the produce which the chaſe afforded. But when theſe became leſs abundant, many were driven to the neceſſity of eating inſects, reptiles,

and other loathſome animals, which could hardly be viewed without abhorrence: and, when expoſed, as too often was the caſe, to the horrors of famine, men have been reduced to the dreadful extremity of devouring each other. But theſe times are happily almoſt now over; and fortunately for man, the ſources whence he may derive the means of ſubſiſtence, are various, and by exertion and induſtry, may be multiplied to an extent, far beyond the preſent demands of the ſpecies. It is certainly among the moſt important advantages of political ſociety, that perſons living in a civilized ſtate, are more likely to obtain a regular and adequate ſupply of food, than the members of any barbarous community.

2. *Clothing.*—Next to food, clothing is the moſt eſſential requiſite for human comfort. In ſome countries, it is true, the inhabitants are accuſtomed to go naked, and account the clothing worn by other men, as troubleſome and unneceſſary. But whatever may be the caſe, in ſome favoured ſpots, and under very peculiar circumſtances, yet over the greater part of the globe, from coldneſs or variableneſs of climate, clothing is conſidered as eſſential, not only for the ſake of decency, but as a ſource of protection and comfort, in conſequence of the peculiar tenderneſs, delicacy, and texture of the human ſkin. Indeed, had men, like the brute creation, a natural covering, the ſpecies would not have been ſo well ſuited, to live in all the various climates of the univerſe, as they are at preſent. Whereas being enabled to procure clothing, by means of an infinite variety of articles, their dreſs may be varied, according to the ſituation of each individual, and the place where he reſides.

3. *Shelter.*—The pleaſures of ſhelter itſelf, may properly be claſſed under the head of animal gratifications, as there are many animals, from the lordly lion, to the ſkulking rabbit, who ſhelter themſelves in holes, in dens, and in caverns, from the inclemency of the ſeaſons, and from the dangers to which they themſelves, and their tender offſpring are expoſed, from the attacks of their enemies, more eſpecially when in ſickneſs or at reſt. Similar apprehenſions, it is probable, firſt gave man a conviction of the neceſſity there was for ſhelter; and as ſuch dens and caverns as were formed by nature, would ſoon be occupied, the idea would thence occur, of erecting the means of ſhelter and repoſe in the trees of the foreſt; then huts made of wood, of earth, or of ſtone, would be conſtructed; and by progreſſive improvement, thence would ariſe the comfortable cottage, the elegant and hoſpitable rural manſion, and the luxurious palace with all its ornaments and ſplendour. Habitations would then not only afford ſhelter from the inclemency of the weather, and ſafety during ſickneſs and repoſe, but a variety of other conveniences and advaatages would ariſe from that ſource of accommodation, more eſpecially the means of uſing the important article of fuel or heat, through the medium of which, food is prepared to more advantage, clothing is improved in its utility, and in the comfort of uſing it; and houſes themſelves, by warmth, and the excluſion of damp, rendered fitter for the habitation of men.

II. Social Gratifications.

That man was formed for ſociety, is ſufficiently evident. The powers of ſpeech with which he is endowed, the advantages he derives from the aſſiſtance of others, the wonderful exertions that can be made, and the objects that can be obtained, by a combination of ſtrength and talents, all prove the neceſſity and advantages of union. Indeed many of the higheſt gratifications which man is capable of enjoying, are derived from this ſource. Among theſe, the following are by far the moſt important; namely, thoſe ariſing, 1. From family connexions or perſonal friend-

ſhip; 2. From marriage, or the union of the ſexes; 3. From the enjoyment of property; 4. From uſeful occupations; and, 5. From political inſtitutions.

1. *Family Connexion, and perſonal friendſhip.*—The firſt ſocial pleaſure which it is proper to mention is, that which ariſes either from family connexion, or perſonal friendſhip, for there does not ſeem to be any material difference between them. In ancient times, the ties of friendſhip were much inculcated, becauſe men were then educated, more as citizens of ſome particular ſtate, than as members of any particular family. But as a great moraliſt (Johnſon) has well obſerved, 'relations are ready made friends;' and an affection for parents, brothers, ſiſters, and other near connexions, cannot be too earneſtly recommended, as, on many accounts, an indiſpenſable and uſeful duty. That, however, is not inconſiſtent with a perſonal regard or friendſhip for other individuals, unconnected by blood, but with whom, from neighbourhood, from early acquaintance, from being educated at the ſame ſchool, from profeſſional intercourſe, or from a ſimilarity of diſpoſition, of purſuits, &c. an intimate connection may be formed.

2. *Marriage.*—The ſecond ſource of ſocial pleaſure, ariſes from the union of the two ſexes in marriage, which undoubtedly yields ſuperior joy, and more exquiſite gratifications, than any that either family connexion or perſonal friendſhip can produce. In either of theſe two latter caſes, a ſeparation of intereſts often takes place, which neceſſarily occaſions jealouſy and diſputes; but in this, if founded on proper principles, from the cloſe and inviolable union that is eſtabliſhed between the contracting parties, there can be none. It is from this connexion alſo, that thoſe peculiar pleaſures can alone originate, which ariſe from the tender ties of parental affection; the delightful taſk of rearing up new beings, from infancy to manhood; and the important obligation, of training them to fulfil the various duties which ultimately are required from them. Such indeed are the innumerable advantages, both public and private, reſulting from this ſpecies of connexion, and the moſt diſtinguiſhed ſtateſmen have invariably maintained, that it ought to be in a peculiar manner favoured by the laws, as the beſt foundation of political ſtrength, and of ſocial happineſs *.

3. *Property.*—The next ſource of ſocial pleaſure, ariſes from the enjoyment of property, which is the creature, and undoubtedly one of the moſt important advantages reſulting from the eſtabliſhment of the ſocial union. If, indeed the power of acquiring property had not been confirmed, there would have been no ſpur to action, nor any incitement to induſtry and labour †. For who would ever have thought of cultivating the ground for food; of procuring the various articles neceſſary for clothing; or building the homelieſt hut; if, inſtead of his being inveſted with the excluſive property of what he had thus created, and the power of bequeathing that

* Such was the reſpect to marriage at Athens, that all commanders, orators, and perſons entruſted with any matter of public confidence, were obliged to be married men. The Roman laws againſt celibacy, during the Auguſtan age, were peculiarly ſevere.

† I know the high colouring which the poets have made uſe of in their deſcription of the golden age; repreſenting thoſe days as the only happy ones, when, according to a favourite quotation,

'Mollia ſecuræ peragebant otia gentes,
Nec domus ulla fores habuit;' &c. &c.

But fiction is the province of poetry; nor is it proper to infringe upon the principal ſource of all its beauties. It is ſufficient to remark, that the injuſtice of the poets has been amply recompenſed by the applauſe of the beſt practical philoſophers, and the ſanctions of the moſt enlightened ſtateſmen.

property to perſons for whom he entertained a peculiar eſteem or affection, any other individual might avail himſelf of his ſkill and exertion, and ſeize the poſſeſſion of them, without his knowledge or conſent. In fact, the eſtabliſhment of property is the great means by which the human ſpecies has been ennobled and improved. When that right was completely eſtabliſhed, it was ſoon found 'that a part only of ſociety, was ſufficient to provide their manual labour, for the neceſſary ſubſiſtence of all; and leiſure was given to others, to cultivate the human mind, to invent uſeful arts, and lay the foundation of ſcience.'

4. *Uſeful Occupations.*—The fourth ſocial pleaſure ariſes from exertion and induſtry in ſome uſeful occupation. Man is naturally fond of action, and cannot feel comfortable, either in regard to his mind or his perſon, if they be not exerciſed and uſefully employed. Indeed as the numbers of any community multiply, new occupations muſt be invented, in order to enable perſons to acquire an income ſufficient to maintain themſelves, and to rear up families for the ſtate. One portion of the community will be devoted to the eſſential occupations of providing food, clothing, and ſhelter: others will be employed in the magiſtracy, and in the learned profeſſions, namely, law, divinity, and medicine: others in defending the country either by ſea or land: and others in foreign commerce, and in the manufacture of various articles foreign or domeſtic conſumption. Nor are thoſe profeſſions which ariſe from the refinement and the luxury of a nation to be condemned as unneceſſary: not even thoſe which contribute merely to the amuſement of the people; for men cannot always be employed in ſerious thought, or laborious occupation, but require occaſional relaxation and pleaſure. Nay, when kept within due bounds, a fondneſs for muſic, for theatrical repreſentations, and for the finer arts, and all the employments ariſing therefrom, cannot be conſidered as uſeleſs, and far leſs as injurious to a great political community; for without the profeſſions attached to the more refined arts, no large city could poſſibly exiſt, not being able to furniſh a great population with the means of ſubſiſtence.

5. *Political Inſtitutions.*—The laſt ſource of ſocial gratification, ariſes from political inſtitutions, and from the perſonal ſecurity, and many other advantages connected therewith.

Among political pleaſures are to be enumerated, the happineſs which naturally reſults from diſcharging the various duties incumbent on the members of any political ſociety; as, inculcating and preſerving obedience to the laws; defending the country againſt foreign enemies, repreſſing domeſtic ſedition; rewarding and encouraging merit; performing beneficent actions to others, and fulfilling, to the beſt of their abilities, ſuch other obligations as may ariſe from the ſituation in which they may happen to be placed; for inſtance, if intruſted with the right of chooſing legiſlators, ſelecting thoſe who are the moſt likely to promote the intereſts of their country, or if poſſeſſed themſelves of any ſhare in the government, having that great object invariably in view.

Unfortunately, however, though political pleaſures, at leaſt on a great ſcale, are in general found the moſt unſatisfactory of any, yet, from their nature, they are moſt anxiouſly ſought after, by ardent and ambitious minds, whoſe great object is, not ſo much to enjoy true and unſullied happineſs themſelves, as gratify the pride, by poſſeſſing authority and command over their fellow-creatures; and to this every thing is ſacrificed. No nation however can be completely happy, where political intrigues, and conteſts for power * are the principal objects of

* Could any thing be more abſurd, than the waſteful wars carried on in England, for ſo many years, whether a perſon of the houſe of York, or houſe of Lancaſter, ſhould govern the country. The caſe at the revolution was extremely different. The conteſt then was, whether liberty or deſpotiſm was to be eſtabliſhed in theſe kingdoms.

attention. The peace and harmony of the community, in that caſe not only diſturbed by faction, but it becomes in a manner the intereſt of one part of the nation, to keep the people in a perpetual ſtate of uneaſineſs and alarm; to divide them into parties; in many inſtances to arm them againſt each other, and perhaps to reſort at laſt to the miſerable expedient of calling in a foreign power to aſſiſt them in their views. Attention to political matters, is, to a certain extent, neceſſary in all countries, more eſpecially in thoſe which are free; but when it degenerates into a factious ſpirit, the pleaſures reſulting from political inſtitutions, muſt in a great meaſure be loſt, and the conſequences muſt be fatal to a nation.

III. Mental Enjoyments.

The laſt, and greateſt ſource of enjoyment, of which man is capable of partaking, ariſes from the exerciſe of his mental faculties, and the pleaſures reſulting from religious and moral exertions.

When the great attainments which man is capable of poſſeſſing are duly conſidered, it can hardly be queſtioned, but that reaſon and thought, were conferred upon him, for nobler purpoſes than merely to ſupply the means of animal gratification, and that the mind or ſpirit with which he is excluſively endowed, is the moſt valuable of all his attributes. Deprived of reaſon, he would differ in nothing but in ſhape, from the brute creation; and unleſs that reaſon is improved, what a poor and defective animal is man? He muſt feel wants, which he knows not how to ſupply; he muſt be deprived of advantages for which he can receive no poſſible compenſation; were he to enjoy all the animal and all the ſocial pleaſures above enumerated, he would ſtill find a vacuity. It is eſſential for his happineſs, therefore, that his mind ſhould be cultivated by means of a proper education, and that every individual, according to the ſituation in which he is likely to be placed, ſhould be enabled to partake of thoſe mental pleaſures to which the human ſpecies is entitled.

But above all, man was endowed with reaſon and thought, in order to contemplate the works of an all-powerful Being, and to prepare himſelf for eternity. What are the other objects of life compared to this? The ſhort period, during which a man continues in exiſtence, expoſed to dangers, hardſhip, trouble, and pain, would not be worth poſſeſſing, were not this life properly conſidered, merely a preparation for another. In the moſt favourable point of view, the life of man rarely exceeds threeſcore and ten years, of which the firſt twenty years are ſpent in childhood, or in the trammels of education, for the purpoſe of being fitted to enter into ſociety: the twenty years at the concluſion of life, generally form a period of ſickneſs and diſtreſs, during which little happineſs can be expected; ſo that in fact there are but thirty years at the utmoſt, which can be looked up to by almoſt any individual, as the period of ſublunary happineſs: and from theſe few years how many are the defalcations. What a portion of theſe is loſt, in ſleep, in ſickneſs, in the indulgence of improper purſuits, and in ſuffering under the effects of the jealouſy, the enmity, and the malignity of others.—Surely ſuch a life is not ſufficient to gratify the wiſhes of any rational being, and he muſt derive infinite pleaſure from the confident hope, which a belief in the doctrines of the Chriſtian religion can alone furniſh, that it will be improved and extended in another, and in a better world. In fact, this great object of human exiſtence, the enjoyment of the bleſſings of eternity, is that which gives a zeſt and reliſh to every other. Impreſſed with ſuch an idea, a man enjoys the pleaſures of thi life, without feeling any grievous diſappointment, when he can partake of them no longer; and he bears with patience, the various troubles and diſtreſſes with which he is here afflicted, truſt-

ing that he will derive a ſufficient recompence, in a future ſtage of exiſtence.

Such, on the whole, are the pleaſures of which human nature is capable of partaking. No individual can expect to poſſeſs them all; but that man is the happieſt, who enjoys the greateſt proportion of them; and that nation is the beſt governed, where the greateſt number of perſons belonging to it, find ſuch bleſſings the moſt attainable.

THE BRITISH MUSE.

The Golden Age of Love.

By Edmund Swift, Eſq.

(The occaſion that gave riſe to the following Poem, may require explanation.—A Lady had preſented to the Author an Emblematical Drawing, accompanied with the following Lines.

'Tel fut L'Amour au Siecle D'Or—on ne le trouve plus, mais on le cherche encore—n'offrant qu'un cœur a la Beauté, auſſi nud que la Verité, ſans armes comme L'Innocence, ſans ailes comme la Conſtance *.')

SOFT as the down deſcends to deck
The plumage of the cygnet's neck,
Soft as the ſilent zephyrs breathe,
Nor wake the ſlumbering wave beneath,
Thy pencil's light and ſhadowy line
Deſcribes the delicate deſign:—
Union of taſte and ſkill!—to prove
'Such in the Golden Age was Love.'

See where yon infant Cupid ſtands:—
His arm the ſubject globe commands;—
There pours his torch the living fire
Of Joy, and Hope, and bold Deſire;
Around his altar lies the bow
That lays the ſtrongeſt warrior low;
And darts of thrilling force, that prove
What 'in the Golden Age was Love.'

Yet why, where Love in height ſublime
Triumphant rules o'er Fate and Time,
Where his full quiver's feathery pride
Proclaims o'er all his empire wide,
Why on his altar's trophied baſe
Would'ſt thou the name of Friendſhip † trace?—
Not to this heart can Friendſhip prove
What 'in the Golden Age was Love.'

Friendſhip! the cold, reluctant name
Would quench the warmeſt, tendereſt flame:
See, where Love lights his living lamp!
The ſacred fire ſhall Friendſhip damp?
Love's arrow in my breaſt I feel;
No wound of Love can Friendſhip heal.
Ah never can thy Friendſhip prove
What 'in the Golden Age was Love!'

And 'cannot Love on earth be found
'Though ſought of all, the world around?'
Is the bright charm thine hand pourtray'd,
Now vaniſh'd to an empty ſhade?
Ah no!—within this faithful breaſt
Still reigns the power of Love confeſt;
And ſtill to thee its truth ſhall prove
'Such in the Golden Age was Love.'

Ah me, methinks I hear thee ſay,
No hearts the power of Love obey;
No conſtant Bards his aid invoke;
No boſoms ſeek his flowery yoke;
Stern Avarice breaks his trampled bow;
The myrtle withers on his brow,
While ſcarce a leaf remains, to prove
What 'in the Golden Age was Love.'

I bend to Love's triumphant throne,
'I give to thee one heart alone.'
Ah when far hence compell'd to go,
I drag the torturing chain of woe,
Tho' many a fair may ſeek mine eye,
To thee I'll pour the faithful ſigh;
And ſpite of time and abſence, prove
'Such' in the Golden Age was Love.'

See Love in native beauty riſe!
Like 'Truth,' the God rejects diſguiſe;
Like 'Innocence,' he bars no arms
To ſhield his breaſt from vain alarms;
Like 'Conſtancy,' unwont to ſtray,
He ſpreads no wing to ſpeed away.
How well Emilia's hand can prove
What 'in the Golden Age was Love!'

Oh dare I hope the beauteous maid
Her Alfred's heart had there pourtray'd!
That heart, like 'Truth,' each thought unveil'd,
No wandering wiſh from her conceal'd,
Like 'Innocence,' unarm'd to bear
The wound her eye inflicted there,
And firm as 'Conſtancy,' ſhould prove
'This is the Golden Age of Love!'

* Such was love in the Golden Age. It is ſought for now, but not found—joining to Beauty a Heart pure as Truth, as defenceleſs as Innocence, like Conſtancy without wings.

† The word *L'Amitié* was inſcribed on the drawing.

THE SETTING SUN.

WHEN roſy Eve revives the fragrant hours,
And heavenly dews refreſh the cloſing flowers,
And birds, with melting muſic, drop to reſt,
The Sun, how radiant! in the purple weſt;
O'er Devon's waving hills and dales I ſtray,
To catch the luſtre of his parting ray:
Now, o'er the vale in ſhade, I bruſh the dew,
Now, on the hill, again his orb I view:
As I deſcend, or riſe, I loſe or gain
The viſion, till he ſinks beyond the main,
Relumes, on weſtern iſles, the morning light,
And yields this nether realm to ſtarry night.
Is life not varied thus with lights and ſhades,
Till in the night of death the proſpect fades?

TO THE EVENING STAR.

GEM of the crimſon-colour'd Even,
Companion of retiring day,
Why at the cloſing gates of heav'n
Beloved ſtar doſt thou delay?

So fair thy penſile beauty burns,
When ſoft the tear of twilight flows,
So due thy plighted ſtep returns,
To chambers brighter than the roſe;

To Peace, to Pleaſure, and to Love,
So kind a ſtar thou ſeem'ſt to be,
Sure ſome enamour'd orb above,
Deſcends and burns to meet with thee.

Thine is the breathing bluſhing hour,
When all unheav'nly paſſions fly,
Chas'd by the ſoul-ſubduing power
Of Love's delicious extacy.

O! ſacred to the fall of day,
Queen of propitious ſtars, appear,
And early riſe; nor long delay
When Caroline herſelf is here!

Shine on her choſen green reſort,
Whoſe trees the ſunward ſummit crown,
And wanton flowers that well may court,
An angel's feet to tread them down.

Shine on her ſweetly ſcented road,
Thou ſtar of ev'ning's purple dome,
That leads the nightingale abroad,
And guides the pilgrim to his home.

Shine where my charmer's ſweeter breath,
Embalms the ſoft exhaling dew,
Where dying winds a ſigh bequeath
To kiſs the cheek of roſy hue.

Where winnow'd by the gentle air,
Her ſilken treſſes darkly flow,
And fall upon her brow ſo fair,
Like ſhadows on the mountain ſnow,

Thus, ever thus, at day's decline,
In converſe ſweet, to wander far,
O bring with thee my Caroline,
And thou ſhalt be my Ruling Star!

TO ELIZA ON HER MARRIAGE.

[From the Poetical Works of H. Macneil.]

YOU'RE now, Eliza, fix'd for life;
In other words, you're now—a wife;
And let me whiſper in your ear,
A wife, though fix'd, has cauſe to fear;
For much ſhe riſks, and much ſhe loſes,
If an improper road ſhe chooſes.
Yet think not that I mean to fright you,
My plan, *au contraire's* to delight you;
To draw the lines where comfort reaches;
Where folly flies; where prudence teaches.
In ſhort, Eliza, to prevent you
From nameleſs ills that may torment you:
And ere bright Hymen's torch burns faintly,
From nuptial glare conduct you gently,
Where (cur'd of wounds from Cupid's quiver)
A milder luſtre beams for ever!
First, then, Eliza, change your carriage,
Courtſhip's a different thing from marriage;
And much I fear (by paſſion blinded)
This change at firſt is ſeldom minded.
The miſs who feaſts on rich romances,
And love-ſick ſonnets, wiſely fancies
That all the end of ardent wooing
Is conſtant billing, conſtant cooing.
The nymph again, whom caution teaches
To doubt the truth of rapt'rous ſpeeches,
She whom experience oft has ſchool'd,
And ſhown how huſbands may be—rul'd,
Laughs at the whims of fond ſixteen,
And thinks that wedlock ſtamps—a queen.
Now I (though ne'er, alas! contracted)
Conſider both as half diſtracted;
And will predict that endleſs ſtrife
Muſt be the lot of either wife.
Not that I would infer from hence
That men of feeling, worth, or ſenſe,
Could ever try to wound or pain
A tender breaſt with cold diſdain;
Or e'er deſcend to ſtorm and battle
At fondly-fooliſh female prattle.
Yet if ſweet madam, without reaſon,
Will fret and fume, and mutter treaſon,
Plaguing her plain, unpuffing ſpouſe,
About his former oaths and vows,
And tender ſighs, and ſoft expreſſions,
With various comments and digreſſions,
I will not ſwear that mere connexion
Will guard the huſband's warm affection;

And when affection cools, they ſay
The huſband's apt to—go aſtray.
Maids, prais'd and flatter'd all their lives,
Expect as much when they are wives;
And think when huſbands ceaſe palav'ring,
That love (ſweet ſouls!) is ſurely way'r-ing:
Then hey! for pets, and cold diſtruſt,
Doubt's ſullen brow, and dreams accurſt:
The game goes on, ma'am's in the dumps,
And jealouſy at laſt is trumps.
For thee, fair flower! of ſofteſt dye,
That caught ſo late each vagrant eye,
Still breathing ſweets, ſtill blooming gay,
Beauteous in winter as in May:
For thee this truth the muſe has penn'd,
The muſe—but more thy anxious friend:
'Woman's bright charms were given to lure us,
They catch, 'tis true; but can't ſecure us.'
Sage Solomon, who paints with beauty
A virtuous woman's worth and duty,
Compares her to a ſhip of trade,
That brings from far her daily bread.
This may be true; but as for me,
I'll draw a plainer ſimile,
And call a virtuous wife a gem,
Which for its worth we ne'er contemn,
Though ſoon its water, ſize, and hue,
Grow quite familiar to the view.
What then enſues? Why, faith, I'll tell ye;
We think of nothing but—the value.
Yet take this gem and lay it by
From the poſſeſſor's careleſs eye,
Conceal its luſtre, dazzling bright,
From beaming daily on his ſight,
I'll take you any bet at pleaſure,
Whene'er he views this tempting treaſure,
With eager bliſs and ſparkling eyes
He'll mark each new-born charm ariſe,
And with the joy of firſt poſſeſſion,
Admire and rave, ſans intermiſſion!
If women, therefore, would be wiſe,
Inſtead of murmurs, tears, and ſighs,
And ſullen moods, and ſcolding frays,
When lovie's abſent for ſome days,
Let ev'ry female art conſpire
To drive him from the parlour fire.
Of all the plagues in wedded life,
To teaze or to torment a wife,
There's none more likely to increaſe
The bane of matrimonial peace,
Than the tame huſband always by
With prying and ſuſpicious eye.
Mark then, when —— goes to town,
Smile thou, when other wives would frown;
He only goes (nay, don't be angry)
To take a walk to make him hungry;
To taſte awhile, unknown to care,
A change of exerciſe and air;
Obſerve the pert, the bold, the witty—
How diff'rent from his own ſweet Betty!
Return impatient to his home,
No huſband, but a fond bridegroom.
Laſtly, Eliza, let me ſay
That wives ſhould rather yield than ſway;
To thwart a huſband's fixt opinion
Is not the way to gain dominion,
For kiſſes order, tears reprove,
And teach us reverence, fear, and love!—
O! born to ſoothe and guide the heart
With native ſoftneſs, void of art!
Thou, whom nor pride nor faſhion ſways,
Unchang'd by flatt'ry's giddy praiſe;
And thou, to whom a trem'lous youth
Firſt ſpoke the tale of love and truth,
Blending with paſſion's fond alarms
The bright'ning beam of virtue's charms—
Ah! lend not now a careleſs ear!—
Yet, yet attend to truth ſincere!
Theſe lines at leaſt with ſmiles receive,
The laſt, perhaps, thy bard ſhall give.
While pleaſure ſpreads her gawdy train,
To lure the trifling and the vain;
While faſhion kills the tedious day
With ſhopping, concert, cards, and play;
While female love and youth's fair charms
Shrink from pure paſſion's ardent arms,
And cling to ſplendour's fancied bliſs,
With withering age and wretchedneſs,
Be thine, Eliza, more refin'd,
The pleaſures of the virtuous mind!
Be thine the tranſports of the heart
Which love and goodneſs ſtill impart;
The tender glance, the tranquil ſmile,
A huſband's ſorrows to beguile;
The bluſh of joy divinely meek,
That paints a mother's glowing cheek;
The balm that friendſhip ſtill beſtows;
The tear that drops for human woes!—
Theſe, theſe, Eliza! light the way,
And cheer when other charms decay;
Conduct through care and worldly gloom,
And whiſper joys—beyond the tomb.

EPIGRAM.

FROM THE GREEK.

HIS ſhafts, the terror of the ſkies,
No more the god of Love diſcover;
Now from fair Anna's azure eyes
With ſurer aim they wound the lover.

For Venus he miſtook the maid,
And laughing ran his arms to give her.
The bow ſhe bent; her ſkill eſſay'd;
And empty'd at my heart the quiver.

FRANCE.

Paris, July 14.

PROCLAMATION.

The Conſuls of the Republic to the French.

'Frenchmen,

'THE 14th of July began, in 1780, the new deſtiny of France. After 13 years of labour, the 14th of July returns ſtill more dear to you, and more auguſt to poſterity. You have conquered every obſtacle, and your deſtiny is fulfilled. Within, all acknowledge the Empire of Equality: Without, there are no longer any enemies who menace your ſafety and your independence; no longer any French colony refuſing to ſubmit to the law, without which it cannot exiſt as a colony. In the boſom of your ports, commerce calls forth your induſtry, and offers you the riches of the univerſe. In the Interior, the genius of the Republic is fruitful in all the germs of proſperity.

'Frenchmen, that this epoch may be for us, and for our children, the epoch of a laudable happineſs; that this peace may be embelliſhed by the Union of Virtue, Learning and the Arts; that conſtitutions ſuitable to our character may environ our laws with an impenetrable entrenchment; that a youth eager to receive inſtruction, may learn in our Lyceas to know their duties and their rights; that the hiſtory of our misfortunes may preſerve us from the repetition of paſt errors; and that this edifice of grandeur, raiſed by the courage of our citizens, may be preſerved in the boſom of Wiſdom and of Concord:

'Such is the wiſh and hope of the French government: ſecond its efforts, and the felicity of France will be as immortal as its glory.

'The Firſt Conſul,

'BONAPARTE.'

Extract of a Letter from Gen. Leclerc, dated St. Domingo, 11th June, to the Miniſter of Marine.

'Citizen Miniſter,

'I informed you, by one of my laſt diſpatches, of the pardon which I was diſpoſed to grant to gen. Touſſaint. This ambitious man has not ceaſed to conſpire ſecretly, ſince the moment I pardoned him. He only ſurrendered becauſe generals Chriſtophe and Deſſalines ſaw that he had deceived them, and refuſed to carry on the war any longer; but ſeeing that he was abandoned by them, he endeavoured to organize an inſurrection among the cultivators, and to make them riſe *en maſſe*. The information I received from all the generals, even from gen. Deſſalines, of his conduct ſince his ſurrender, left me no doubt upon the ſubject. I intercepted the letters he had written to a man of the name of Fontaine, who was his agent at the Cape. Theſe letters prove, beyond a doubt, that he was conſpiring to regain his former influence in the colony. He placed conſiderable reliance upon the ſickneſs which prevailed in the army. Under theſe circumſtances, I did not think it right to give him time to effect his criminal purpoſes. I ordered him to be arreſted: this was not eaſy to be accompliſhed; it was nevertheleſs effected by the ſkilful meaſures of general Brunet and of citizen Ferrari, my aid-de-camp, whom I had entruſted with this buſineſs.

'I have ſent to France, with all his family, this man, who is ſo profoundly perfidious, and who, with ſo much hypocriſy, has done us ſo much evil. The government will ſee what is fit to be done with him.

'The arreſt of general Touſſaint has given riſe to new aſſemblies of the rebels: two chiefs of the Inſurgents have been already arreſted, whom I have ordered to be ſhot; and one hundred of his principal adherents have been alſo arreſted; a part of whom I have put on board the frigate La Murion, which I have ordered to ſail for the Mediterranean. The remainder have been diſpoſed of in the different ſhips of the ſquadron.

'I am continually occupied in the reorganization of the colony, with as little force as poſſible; but the exceſſive heat, and the maladies which afflict us, render the labour extremely difficult. I expect with impatience the month of September, when the ſeaſon will reſtore our activity.

'The departure of Touſſaint has cauſed a general joy at the Cape.

'The commiſſary of juſtice Montperon is dead. The colonial prefect Benezech is dangerouſly ill. The adjutant commandant Dampierre, who was a young officer of great promiſe, is alſo dead.

'I have the honour to ſalute you,

'LECLERC.'

CONSTITUTION OF THE LIGURIAN REPUBLIC.

Liberty, equality, and the national repreſentation, are the three grand baſes of

the Ligurian conſtitution. The ſenate is compoſed of 30 members of the age of at leaſt 30 years. It is divided into five magiſtracies—the Supreme Magiſtracy; that of Juſtice and Legiſlation; that of the Interior; that of War and Marine; that of Finances. The preſidents of the four particular magiſtracies diſcharge, for what concerns each, the functions of miniſter. The ſupreme magiſtracy conſiſts of nine members, comprehending the doge, who is preſident of it, and the preſidents of the particular magiſtracies. The duration of the functions of the doge is ſix years. A third of the ſenate is renewed every two years. There are in the republic three grand colleges; that of proprietors, the members of which muſt poſſeſs funds to the amount of 120,000 livres; the college of merchants; and the college of Dutti, choſen from among the members of the law, and thoſe employed in the ſciences, belles lettres, and liberal arts. The two former colleges conſiſt each of 200 members; that of the Dotti conſiſts only of 100. The members of the colleges muſt be at leaſt 30 years of age. They are authoriſed to meet every two years, and may be convoked extraordinarily by the ſenate. Their ſitting cannot exceed ten days, and the places where they aſſemble muſt be two leagues diſtant at leaſt. They elect the ſenators: they preſent three candidates, from among whom the ſenate chooſes the doge. The members of the college are for life: the judges are appointed for life. The catholic and apoſtolic and Roman religion is the religion of the ſtate. The property poſſeſſed at preſent by the archbiſhops, biſhops, dioceſan chapters, ſeminaries, pariſhes, and vicarages, is inalienable. There ſhall be eſtabliſhed a dock-yard at Genoa, and the republic will main a navy, conſiſting at leaſt of two ſhips of 74 guns, two frigates, and four corvettes. There ſhall be a National Inſtiiute.

LAW REPORTS.

COURT of KING'S BENCH.

Archer *v.* Wellingrice.

THIS was a *qui tam* action brought by the plaintiff, who is a common informer, to recover the penalty of 100l from the defendant, who is a publican, for having public dances in his houſe, without a licence from four magiſtrates, as the act of the 25th of George II requires.

Mr. Park, on behalf of the plaintiff, ſaid he could not point out in more forcible language the evils ariſing from thoſe tumultuous receptacles of perſons of all deſcriptions, than by reading the preamble of the act, upon which the preſent penalty was ſued for. This preamble ſtated every kind of immorality and vice as likely to proceed from the temptation ſuch houſes held out to the lower claſſes to run into expences they could not afford, and into irregularities that would lead them to ruin.

A great number of witneſſes, ſummoned on the part of the plaintiff, proved that the defendant was proprietor of the public-houſe, called the Coach and Horſes, in Holborn, oppoſite the George and Blue Boar; that there were dances there every Monday and Friday, when any gentleman could obtain admiſſion with a lady, on paying eighteen-pence; the money was generally paid to one Clark, who was door-keeper and fiddler. The defendant, who was the landlord, only interfered in ſelling liquors and refreſhments.

The witneſſes, who were perſons that had frequented the houſe for the purpoſe of dancing, all agreed that every thing was conducted there with the greateſt regularity and decorum, and without any diſturbances.

Mr. Garrow, on the part of the defendant, endeavoured to prove that Clark was a dancing maſter, and that this room was his ſchool, but in this attempt he did not ſucceed.

Lord Ellenborough told the jury that the fact being clearly proved, that the defendant had, without ſuch licence as required by law, eſtabliſhed public dances in his houſe, he as judge, and they as jurymen, were but inſtruments of the law, and bound by the law to declare, that he had forfeited the penalty named in the act of parliament, on which this action was brought.—Verdict for the plaintiff, damages 100l.

Wedneſday, July 21.

Sittings before Lord Ellenborough, at Guildhall, London.

Blake *v.* The Governor and Company of the Bank of England.

This was an action on a promiſſory note for 1000l. The caſe is of conſiderable importance; the trial laſted upward of eight hours.

Mr. Parke, after ſtating by way of apology, that he appeared for the plaintiff, on account of the indiſpoſition of a learned

friend, went on to obſerve that the jury would no doubt be aſtoniſhed to find the Bank of England one of the parties on this record. But the truth was, that the bank was only nominally the defendant, and, as appeared from the ſolicitor employed, took no ſhare whatever in the diſpute. Mr. Blake, the holder of the note, was a working ſilverſmith, in Caſtle-ſtreet, Leiceſter-fields, a man of pretty extenſive dealings, and moſt unexceptionable character. About the beginning of April laſt, he received a letter from Bath, from a perſon who called himſelf Dallow, ſtating, that his uncle was going to advance him a ſum of money, that he was going to ſet up a goldſmith's ſhop in Milſom-ſtreet, and requeſting Mr. Blake to ſend him a liſt of the articles manufactured by him, with the prices annexed. This liſt was accordingly ſent, but with an intimation that ready money would be indiſpenſibly neceſſary. In his ſecond letter Mr. Dallow ordered as much plate as would amount to 800l, and ordered ſome ſpoons to be made with the cypher R. for a particular friend, who was to give him handſel on the day he opened ſhop; ready money was faithfully promiſed. Silver was accordingly procured from the refiner, and all the men were kept hard at work. On the evening of the 21ſt, a gentleman called who ſaid his name was Dallow; Mr. Blake was from home, but his clerk deſired him either to wait a little or to call again to-morrow; he ſaid, he could not wait, as he was going into the city to ſee a great number of tradeſmen, from whom he was getting goods. He called again next day about two, and being informed that two-thirds of the articles he had ordered were ſtamped, he ſaid, he would carry away as many of them that evening as could be finiſhed. He likewiſe agreed to buy eighty-one old watches. He accordingly returned at half paſt ſeven. As the goods were packing up, he ſtepped into the counting-office, and ſaid to Mr. Blake, 'I am afraid, ſir, I muſt trouble you with a bill.' 'Oh, (exclaimed the plaintiff,) I can take nothing but Bank of England paper.' Mr. Dallow ſmiled, and replied, 'I never meant to give you any other. Here is a 1000l note. Let me have the difference.' This note appeared dated ſo far back as April 1793, and the plaintiff was ſtartled. His clerk, however, obſerved, that he had never heard of a forgery upon the bank to the amount of 1000l, and that he had no doubt all was fair and right. Dallow ſaid, that if it had not been for his uncle's death, the note might have been much older; for he was a great hoarder, and would have been glad to have carried it with him to the other world. The plaintiff accordingly took the note, and paid him the balance. Being overſeer of the poor for the pariſh of St. Martin's in the fields, he was in the habit of receiving large ſums from the pariſhioners. Accordingly he gave him a draft upon Drummond and Co. of general Hulſe, treaſurer to the prince of Wales, and a bank note indorſed by the duke of Marlborough. It might be aſked, why he did not give a check upon his own banker for the reſt; but it was well known, that goldſmiths were formerly the only bankers in London, and they ſtill kept their own caſh. He accordingly paid him in bank notes, the numbers of which were taken down by his clerk. Mr. Dallow immediately after carried off the articles in a hackney coach, and never was heard of more. Next morning, the clerk carried the 1000l note to the bank, but upon preſenting it for payment, he was told that payment was ſtopped, and the note was ſeized. The hiſtory of the note was this: in 1793, it had been paid to a man of the name of Noland, a ſoap-boiler, who next day abſconded. A commiſſion being iſſued out againſt him, and he being brought before the commiſſioners, he ſaid that he loſt this, together with ſeveral other notes of which he had given no account, when the coach upſet at North Mimms. An advertiſement was inſerted in the Gazette, ſtating that payment of the whole was ſtopped; and this one being ſet up to auction, was bought in by ſeveral gentlemen of very large fortune, who indemnified the bank, and were amply ſufficient to pay the plaintiff his 1000l, together with his coſts. After ſtating theſe particulars, Mr. Parke entered into a very long argument to ſhow that the plaintiff was entitled to recover. No doubt could be entertained, that he paid a full conſideration for it, and that the tranſaction on his part was fair and honourable. Therefore, unleſs all the caſes decided for ages were to be overturned, and the paper-credit of the country was to be deſtroyed, the verdict of the jury muſt paſs in his favour.

The clerk being called, confirmed Mr. Parke in every thing he had ſaid about the manner in which the order was given and executed. On his croſs-examination, he allowed that they never had had an order nearly to this amount before, nor in his time ever dealt with a country cuſtomer.

He was not at all ſtartled at the idea of the uncle having died in ſo ſhort a time, and Dallow having come into poſſeſſion of his effects. When Dallow went away in the coach, he deſired that the order might be finiſhed, ſaying that he would call again in a few days. It appeared Dallow indorſed the note, and then ſigned his name Dallone, but this circumſtance excited no ſuſpicion.

Two apprentices of the plaintiff's and his ſon were then examined, and gave nearly the ſame account.

Several ſilverſmiths were afterward called, who ſwore that the articles were all charged at their full value.

Proof was then given of general Hulſe's draft being paid, &c.

There being ſome inſinuation that during a journey to the weſt of England the plaintiff had formed an intimacy with this ſwindler, the clerk of the pariſh of St. Martin's, and one of the church wardens, were called, who ſtated that they had been along with him to Bridge-water upon ſome pariſh buſineſs, and that he was never a quarter of an hour out of their ſight.

Mr. Erſkine made an able ſpeech for the defendants. He allowed that, if the plaintiff had paid a full conſideration for the note, without notice or ſuſpicion of it being illegally come by, he was entitled to a verdict; but under ſuch circumſtances, he contended, it was impoſſible for any man to be deceived. He repreſented Mr. B. as wiſhing to get off his old watches, and to ſell a large quantity of plate on his own terms. Beſides commenting upon the evidence already given, he ſaid he ſhould prove that the plaintiff refuſed to take any ſteps to detect the impoſtor. He contended always that the Bank was liable, and that it was not his buſineſs to make any inquiries.

Mr. Kay, the ſolicitor to the bank, ſwore, that when Mr. Blake came to him, he adviſed him to go to Bow-ſtreet, and to advertiſe in the newſpapers; but that he refuſed. The apprentices had ſaid that the coach was No. 1, and they told their maſter of this on the 22d, or 23d; but according to Mr. Kay, he diſclaimed all knowledge of this kind. However, the witneſs afterward allowed that Mr. B. offered to advertiſe, and even to go to Bath, if the Bank would pay his expences.

Mr. Abraham Newland ſtated, that he had been employed in the bank of England 54 years. Notes for 1000l. eight or nine years old are very unfrequently in circulation. Every note above a twelvemonth old before it is paid, paſſes through the accounts office.

The payment of this note to Noland was then proved, together with the inſertion of the advertiſement in the Gazette. Blake's examination before the commiſſioners of Bankrupt was likewiſe read. He had not been allowed the benefit of council, but it tallied exactly with the evidence of the witneſſes. After a very animated reply from Mr. Park,

Lord Ellenborough proceeded to charge the jury. He ſaid the only queſtion was, whether the plaintiff had not taken the note under ſuch circumſtances of ſuſpicion as muſt neceſſarily have led a reaſonable man to conclude that it had not been honeſtly come by. Having laid down the law with great preciſion, he proceeded to ſum up the evidence. Almoſt all his obſervations were ſtrongly in favour of the defendants, and he ſeemed to be decidedly of opinion, that though the plaintiff had not had any previous acquaintance with Dallow, and had taken the order honeſtly enough, yet that he muſt have been aware, from a variety of circumſtances, that Dallow was not the legal holder of the note, and that from his conſciouſneſs of this he was afraid to make any inquiries.

The jury, however, almoſt without turning round, found a verdict for the plaintiff – Damages 1000l.

Friday, July 23.

Hanſon v. Coare.

The defendant was a wine and brandy merchant in Newgate ſtreet. Having amaſſed a conſiderable fortune, he wiſhed ſome time ago to retire from buſineſs, and adverti ſed to ſell the leaſe of his houſe, together with the goodwill of his trade. The plaintiff ſaw the advertiſement, and entered into terms with him. They accordingly came to an agreement, by which, in conſideration of the ſum of 1050l. Mr. Coare made over his intereſt in the houſe to Mr. Hanſon, and covenanted, among other things, under a penalty of 200l. to uſe his utmoſt exertions to introduce him to his cuſtomers. It was to recover this penalty for a breach of this covenant that the preſent action was brought. It appeared that Mr. Coare undertook to ſign a circular letter, inviting all thoſe who had employed him to employ his ſucceſſor, but that diſputes ſoon after aroſe between them, and Mr. Coare refuſed to ſign the letter unleſs he

ſhould receive 150l, or 200l. This demand Mr. Hanſon refuſed to comply with. The conſequence was, that for want of a recommendation a great many of the cuſtomers dropped off. It was likewiſe given in evidence, that though the plaintiff had covenanted to collect the debts of the former firm, the defendant had written letters to all his creditors, deſiring them in the moſt offenſive language, and without one word in favour of his ſucceſſor.

Lord ELLENBOROUGH ſaid, this could by no means be conſidered a peeviſh action. The plaintiff, in conſideration of a promiſe of the defendant's, had paid him a large ſum of money, and when the promiſe was not fulfilled, he had a right to complain, and to apply to a court of juſtice for redreſs. However, his lordſhip was clearly of opinion that the 200l. was not to be conſidered as liquidated damages. This penalty was to be incurred upon a breach of all the covenants, and it was only alledged here that one of them had been broken. What ſum the jury ſhould aſſeſs it was not eaſy to ſay. The minimum evidently was 200l. for at ſo much the defendant had valued that which he ought to have granted. But the jury muſt likewiſe conſider, that to have enabled the plaintiff to have given 200l. its value to him muſt have been conſiderably greater.

The jury found for the plaintiff, damages 500l.

Lord Ellenborough ſaid, he hoped this verdict might be of uſe.

The council for the plaintiff intimated that, upon the opinion of Mr. Waud, they meant to move to enter the verdict for 200l. and his lordſhip obſerved, that though he himſelf was at preſent decidedly againſt them, he thought it a very fit point to be brought before the court.

COURT OF COMMON PLEAS.

Thurſday, July 22.

Hand *v* Kiſten.

Mr. ſerjeant Cockel ſtated, that his client was a young lady who ſought redreſs for one of the moſt cruel injuries that could be offered to her ſex. She reſided at Harbro' with her brother, a reſpectable tradeſman in that town. The defendant was put apprentice to Mr. Hand, and in the courſe of ſome years a mutual affection ſprung up between him and Miſs Hand. An *eclairciſſement* at length took place, and the lovers vowed eternal conſtancy. The term of the defendant's apprenticeſhip was now nearly expired, and he reſolved to try his fortune in London.—After a tender parting he accordingly ſet out. Miſs Hand was much depreſſed, and her fears of the diſſipation of the metropolis proved to have been prophetic. For ſome time, however, he remained true to his promiſes. He wrote her affectionate letters, and having ſeen her once in town, he teſtified all the fondneſs for her which had formerly marked his paſſion when at its height. But when he ought to have led her to the altar he forgot his plighted troth and drew back from his ſacred engagements. She was thus diſappointed in her views of future happineſs, and held up to the ridicule of all her acquaintance. The learned ſerjeant added many other particulars, and deſcribed in the moſt glowing terms the ill uſage which Miſs Hand had received.

The evidence conſiſted chiefly of the letters which the defendant had wrote from London to his miſtreſs at Harbro.' Theſe occaſioned infinite merriment. In the firſt place they diſcloſed the fact that Mr. Kiſten was a *journeyman tallow chandler*. In painting the ardour of his attachment he likewiſe borrowed many terms from his art. Although it appeared that he was not always in a *melting mood*, he talks of his ſoul being *diſſolved*, of being *dipped* in wretchedneſs; of his heart being *caſt in a delicate mould*, of the *flore* of happineſs which he conceived was awaiting him; of his love *burning clear*; of his liver being conſumed like the *wick of a candle*; of his fears leſt her paſſions died away like the *flame in the ſocket of a candleſtick*, &c. 'My love, (ſays Mr. Kiſten) my angel, my Hand, when ſhall we be joined together, *and mix like wax and ſpermaceti?* By the bye, I have bad news for your brother. Tallow is as high as ever, and at preſent there is a proſpect of its riſing higher ſtill. As ſuch he cannot do better than buy any that comes in his way.

From an able croſs-examination, it came out that this diſconſolate virgin is thirty-ſeven years of age, and the fickle ſwain might almoſt be her ſon.

Mr. ſerjeant Beſt addreſſed the jury in behalf of the defendant with his uſual acumen and pathos. He allowed that the young man had acted very indiſcreetly, but ſtrenuouſly contended that the plaintiff had no reaſon to complain. He thought it unneceſſary to call any witneſſes, as it

really appeared that the match was quite diſproportionate, and that if it had taken place it could have produced nothing but miſery.

Lord Alvanley obſerved to the jury, that though caſes of this kind were often very ſerious, yet that the preſent could ſcarcely be conſidered of ſuch a complexion. From the rupture that took place, Miſs Hand could ſcarcely be ſuppoſed to have been deprived of much happineſs. Where the ages of the parties were ſo unequal, and where there had been no conſent of parents, little could be expected but miſery and diſcord. However the lady had met with a diſappointment, and was certainly entitled to ſome compenſation. He would not venture to point out how large it ſhould be.

The jury, after conſulting together for a few minutes, found a verdict for the plaintiff, damages 100l.

HAYMARKET THEATRE.

A NEW Comedy, of three Acts, intitled BEGGAR MY NEIGHBOUR, OR A ROGUE'S A FOOL, was preſented on Saturday, July 10, at this theatre.

This Comedy is an acknowledged production of Mr. Morton, the author of many pieces, which have deſervedly been favoured with public approbation. It is certainly, on the whole, below what might be expected from ſo ſucceſsful a writer.

This comedy having met with an unfavourable reception from the audience, is, for the preſent, withdrawn.

A new muſical farce, in two acts, intitled THE SIXTY THIRD LETTER, was performed at this theatre, on Saturday, July 24. The characters were:

Sir Wilful Poſitive, Mr. Waddy; Sidney, Mr. De Camp; Dulcet, Mr. Fawcett; Patrick Caſey, Mr. Johnſtone; Sharp, Mr. Chippendale.—Miſs Metaphor, Mrs. Davenport; Lydia, Mrs. Mountain; Patty, Mrs. Harlowe.

The author of the preſent piece has rejected all meretricious ornament, and builds his hope of ſucceſs upon whimſical character and ludicrous incident. Miſs Metaphor is an old maid, whoſe head is turned with novel writing. The volume which at preſent occupies her thoughts is contained in a ſeries of letters, of which ſhe loſes the Sixty Third; her brother, ſir Wilful Poſitive, having found the letter, throws it out of window; and Patrick Caſey, a diſcarded Iriſh ſervant, picks it up. It contains a plan of an elopement, in which the lover is requeſted, by his miſtreſs, to have himſelf introduced into the houſe in a hamper, as a preſent of wine from a friend. Patrick's vanity immediately conſtrues the incident into a real propoſal from his old lady, miſs Metaphor, and he immediately proceeds to obey the inſtructions. The letter is in the mean time ſought in vain, and at length the hamper arrives. It is introduced under all the circumſtances preſcribed, and miſs Metaphor, ſtruck with the fidelity of the repreſentation, opens the hamper and exclaims, that the ſcene is a rehearſal of her Sixty Third Letter. Patrick riſes from his concealment and claims the reward of his addreſs; but miſs Metaphor undeceives him, and beſtows upon him the hand of Patty, a lively waiting-maid, whom he meant to jilt for the ſake of the miſtreſs. This plot is contraſted with another, of which Lydia, the ward of ſir Wilful Poſitive, and Sidney, her lover, conſtitute the materials, but it is far inferior in management and effect. Some good ſcenes are alſo produced by the introduction of Dulcet, a ſervant, ſo fond of muſic, that all his converſation and anſwers are in the words and air of ſome well known ſong. The part was productive of ſeveral whimſical coincidences and appoſite alluſions, which excited much laughter. It is not neceſſarily connected with the plot, but as embelliſhment it adds much to the merit of the piece. Mr. Prince Hoare is ſaid to be the author of the dialogue. The overture and muſic are adverti ſed as the production of Dr. Arnold. This ingenious compoſer's preſent effort is not in his beſt ſtyle. Several of the airs, thoſe aſſigned to Mrs. Mountain, did not afford a ſingle opportunity of diſplaying the ſweetneſs of her voice, or her powers of execution.—There is, however, much comic force in the poetry, and hence the ludicrous ſongs produced much laughter and applauſe.

The piece was admirably acted. The principal characters are thoſe of Mr. Fawcett, Mr. Johnſtone, Mr. Waddy, Mrs. Davenport, and Mrs. Harlowe, and they had all the advantage of being well adapted to the particular powers of theſe ſeveral performers. It was heard without a murmur, and announced for future repreſentation with every mark of applauſe.

HISTORICAL CHRONICLE.

JUNE 28.

SATURDAY, the 26th, being the day appointed for laying the foundation ſtones of the London Docks, a vaſt concourſe of perſons aſſembled from all quarters to witneſs a ceremony which commences an undertaking of ſo much public utility.

About two o'clock, the chancellor of the exchequer, lord Hawkeſbury and Hobart, Mr. N. Vanſittart, ſir A Hammond, and various other gentlemen, arrived at Wapping. They were conducted round the works next the river, ſhown the ſteam-engines, plans, &c. after which they were conducted to the foundation of the entrance baſin, where two ſtones were prepared to be laid, each about two tons and a half. The firſt ſtone was laid by the chancellor of the exchequer, lord Hawkeſbury, ſir Richard Neave (chairman) and Edward Forſter (deputy chairman): when this ſtone was laid, two glaſs bottles, containing the gold, ſilver, and copper coins of the preſent reign, with a medal of the king's recovery, and the peace, were depoſited in a hole made in the ſtone, and over them a tin plate, containing the following inſcription, was laid:

THIS STONE
was laid on Saturday, the 26th day of June,
Ann. Dom. 1802,
In the Foundation of the Entrance Baſin
of the
LONDON DOCKS,
undertaken by private Subſcription
for
The greater Accommodation and Security
of
SHIPPING, COMMERCE and REVENUE,
within the
PORT of LONDON,
and purſuant to an Act paſſed on the
20th day of June, Ann. Dom. 1800.
In the 40th year of the reign of Geo. III.

The chancellor of the exchequer threw a purſe of gold on the ſtone for the workmen; afterward the ſecond ſtone was laid. Three times three cheers were given, both to the firſt and ſecond ſtone.

When this operation was performed, the foundation ſtones in the tobacco warehouſe were laid, having alſo coins and a ſimilar inſcription—a purſe of gold being laid on them The company then proceeded in waggons covered with green baize along the iron railways round the dock premiſes, and laid alſo the foundation ſtone of a warehouſe for general purpoſes. The company next went up Virginia-ſtreet, to Ratcliff-highway, where their carriages were waiting to take them to the London tavern, where about a hundred partook of an excellent dinner, after which appropriate toaſts were drank. Sir Richard Neave in the chair, meſſrs. Addington, Vanſittart, &c. lords Hobart, Walſingham, Harvey, Hawkeſbury, &c. being preſent.

The night balloon, which aſcended from Ranelagh gardens, at one o'clock on Saturday morning, merits a ſhort deſcription:—It conſiſted of a ſilk balloon, filled with inflammable air or gas, with which one-fourth part of common air was mixed, for the purpoſe of rendering the exploſion intended more ſudden and brilliant. To the balloon was attached, by cords, a fine and expenſive fire-work, differing in nothing from the uſual wheels, ſtars, &c. except in this, that the fire did not begin till it was elevated ſeveral hundred feet in the air, which gave it a very uncommon and fine effect. Juſt before the whole of the combuſtibles were exhauſted, they ſet fire to the gas in the balloon, which went off with a great exploſion, and a brilliant flame, leaving a prodigious cloud, which was rendered white and ſhining by the light of the ſtill inflamed fireworks, which began to fall as ſoon as the balloon exploded, and were totally extinguiſhed in an inſtant before they fell to the ground. The effect was viſible at the diſtance of ten or twelve miles in all directions.

JUNE 30.

On Monday an elegant afternoon breakfaſt was given at Ranelagh by the directors of the Pic-Nic ſociety, of which about two thouſand perſons of the firſt diſtinction partook. The company after promenading for ſome time, ſat down to a moſt elegant entertainment, conſiſting of every delicacy of the ſeaſon, and of a deſſert of the choiceſt fruits that could be procured. About five o'clock, M. Garnerin, the celebrated aeronaut, accompanied by lieutenant Sowden, of the navy, aſcended in his balloon. Its aſcent was, in the firſt inſtance, very gradual, in order that all poſſible gratification might be afforded to the crowd of faſhionable and admiring ſpectators who attended on the occaſion. Having evinced his ſkill in the management of his ſtupendous vehicle, by manœuvring for a few minutes immediately

over the gardens, M. Garnerin took his leave of the company, and ſaluting them with a flag which he held in his hand, proceeded upon his aerial voyage, in a north eaſtern direction over the town, at ſo moderate a height as to be diſtinctly obſerved in every part of the metropolis. The atmoſphere being exceedingly clouded and heavy, he was under the neceſſity of parting with the greater part of his ballaſt to enable him to aſcend to the deſired height. This, however, in a very ſhort time he effected; but the numerous clouds, which from the unfavourable ſtate of the weather he had to encounter, in the courſe of fifteen minutes entirely obſcured him from view. Next day colonel Greville received an expreſs from Colcheſter, with the two following letters; the firſt from lieutenant Sowden to the colonel himſelf, the ſecond from M. Garnerin to his friend in London:

'Dear Greville, Colcheſter, June 29.

'After a delightful voyage of three quarters of an hour, we landed ſafe at Colcheſter. Our landing was extremely difficult, on account of the high wind. You may ſuppoſe at what a devil of a rate we came at, Yours, &c.

'R. C. SOWDEN.'

Extract of a letter from monſieur Garnerin to his friend in London, dated Colcheſter, June 29, one o'clock in the morning.

'I take the earlieſt opportunity of informing you, that after a very pleaſant journey, but the moſt dangerous deſcent I ever made, on account of the boiſterous weather, and the vicinity of the ſea, we alighted at a diſtance of four miles from this place, and ſixty from Ranelagh. We were only three quarters of an hour on the way. To night, I intend to be in London with the balloon, which is all to pieces, as well as the netting. We ourſelves are all over bruiſes.'

Naples, June 9. Charles Emanuel the Fourth, king of Sardinia, having by an inſtrument, dated at Rome the 4th of this month, reſigned his crown and dominions in favour of his brother the duke de Aoſt, his royal highneſs has acceded to the crown, under the name of Victor Emanuel.—*London Gazette.*

Paris, June 17. The Ottoman miniſter at this reſidence has this day received from Conſtantinople the act of acceſſion, on the part of the Sublime Port, to the definitive treaty of peace between his majeſty and the French republic, the king of Spain, and the Batavian republic, ſigned at Amiens on the 27th of March laſt.—*Ib.*

Downing-ſtreet, June 29. Accounts have been received here, that his majeſty's ratification of his acceptance of the king of Sweden's act of acceſſion to the convention, ſigned at St. Peterſburgh the 17th June, 1807, had reached Stockholm.—*Ib.*

Downing ſtreet, June 29. A diſpatch has been received from his excellency lord St. Helens, his majeſty's ambaſſador extraordinary at the court of St. Peterſburgh, dated June 3d, containing the particulars of what paſſed between the count de Kotſchoubey and baron Stedingk, the king of Sweden's ambaſſador at St. Peterſburgh, on the occaſion of the latter's acceding, in the name of his Swediſh majeſty, to the convention between his majeſty and the emperor of Ruſſia, ſigned at St. Peterſburgh the 17th of June 1801.

This diſpatch ſtates, 'That he (the count) after endeavouring to refute the various objections that had been urged by the baron de Stedingk againſt the tenor of the convention of the 17th June 1801, and to demonſtrate to him that that treaty preſented to the northern powers all the advantages that it had been found poſſible to obtain, had proceeded to obſerve, that the antecedent convention between Ruſſia and Sweden having been in ſome ſort broken by that which had ſince been concluded between Ruſſia and England, and to which Denmark had alſo acceded, it would certainly be adviſable for Sweden to accede likewiſe to that treaty, in order that ſhe might not remain in a manner inſulated, and that ſome common pact might ſtill continue to exiſt between the powers of the north.'—*Ib.*

JULY 1.

The committee appointed by the lords of the treaſury to examine the models which have been formed for the monuments to be erected in St. Paul's cathedral, in conſequence of addreſſes to his majeſty from the houſe of commons, conſiſts of the following perſons. The right hon. Charles Long, ſir George Beaumont, R. P. Knight, J. Townley, H. Bankes, W. Locke, and R. P. Carew, eſqrs. They have allotted the execution of the monuments to the undermentioned artiſts:

Mr. Flaxman, the monument of earl Howe.—Mr. Weſtmacott, ſir Ralph Abercrombie.—Mr. Bankes, capt. Weſtcott.—Mr. Roſſi, capts. Moſs and Riou.

The two former are to receive 6000 guineas for each of the monuments of the commanders in chief; the latter 4000 guineas for each of the others.

The following is an authentic copy of the ſentence paſſed by the court martial on

lieutenant-general Innes:—'The court having duly conſidered the evidence againſt lieut. gen. Innes, as alſo the general's defence on the firſt article of the charge preferred againſt him by the lord's commiſſioners of the admiralty, namely, For having permitted lieut. col. Berkley to bear ſerjeant M'Gwyer on the monthly return of his recruiting party, for a time ſpecified in the charge, after he had deſerted from the ſaid party, are of opinion that the charge is vexatious and frivolous, and therefore they do moſt honourably acquit the ſaid lieut. gen. Innes of the ſame.—With reſpect to the ſecond article of charge, namely, Diſcharging ſerjeant Pinn, of the royal marines, without the permiſſion of the admiralty, the court are of opinion that lieut. gen. Innes acted very properly in diſcharging the ſaid ſerjeant Pinn, and therefore they do moſt honourably acquit lieut. gen. Innes of this charge alſo.'

JULY 3.

The following paragraph is copied from The New York Commercial Advertiſer, of May 27: 'It is with much regret we announce to the public the death of Mrs. Martha Waſhington, relict of the great and good preſident Waſhington. Her deceaſe took place on Saturday laſt (May 22) at Mount Vernon. The death of this eſtimable woman muſt ſtrongly recal to the recollection of every true American the many amiable qualities which marked her character through the revolutionary war, and through the halcyon days of the firſt eight years' adminiſtration of the Federal government. The worthy conſort of the firſt of men—ſhe ſhared his anxieties—ſhe ſoothed his cares—ſhe conciliated for him and for herſelf the affections of her country, and has left a name that will be reſpected and beloved by the citizens of theſe ſtates, while ſuperior excellence continues to command their approbation and eſteem.'

The following is a copy of general orders, iſſued by the commander in chief of his majeſty's forces at Martinique, relative to the late mutiny of the 8th Weſt India regiment at Dominica.

GENERAL ORDERS.

Adjutant-general's office, Fort Royal, Martinique, April 27, 1802.

The commander in chief has been under the neceſſity of performing a painful duty, that of ordering the execution of ſeveral mutineers of the 8th Weſt India regiment.

This unfortunate event will not induce him, in the ſmalleſt degree, to ſuſpect the fidelity of the other Weſt India regiments; he will not confound the innocent with the guilty; and he ſincerely hopes that no perſon will be ſo unjuſt as to do ſo.

This mutiny is to him no cauſe of apprehenſion that other regiments will follow the example: he, on the contrary, believes, that the ſoldiers of the Weſt India regiments will, as well as thoſe of other regiments, conſider with abhorrence the cruel murders committed by ſome of the 8th Weſt India regiment.

The 1ſt Weſt India regiment is in Fort Edward, and the only troops in the town of Fort Royal, where the commander in chief reſides, are detachments from the 4th and 10th Weſt India regiments; theſe three corps furniſh the guard on his quarters; he does not intend to make any alteration, but will continue ſurrounded and guarded by theſe troops, with the moſt entire confidence in their fidelity and good conduct.

Should a change of circumſtances occaſion his again going on ſervice in this country, he will take under his command as many Weſt India regiments as the nature of the ſervice will admit. It has been ſaid that a report was ſpread among the ſoldiers of the 8th Weſt India regiment that they were to be ſold as ſlaves: if any ſuch report has been circulated in the 8th, or any other Weſt India regiment, by evil-minded perſons, the commander in chief aſſures the ſoldiers of thoſe regiments that the report is entirely without foundation, no ſuch thing either will or can happen; but his excellency does not mean to extend this aſſurance to mutineers and murderers.

He will protect and encourage ſuch men of the 8th Weſt India regiment, as ſhall appear not to have joined in the mutiny.

This order to be read at leaſt three times to every Weſt India regiment; the officers of thoſe regiments will uſe their utmoſt endeavours to make the men underſtand the purport of it.

The commander in chief is highly ſenſible of the merit of the prompt and effectual meaſures adopted by brigadier general Johnſtone, to ſuppreſs the late mutiny.

The very favourable report made by brigadier general Johnſtone, of the good conduct, zeal, and ſpirit of the officers and ſoldiers who acted under his orders, affords the commander in chief much ſatisfaction.

(Signed) J. THOMAS, D.A.G.

JULY 6.

Yeſterday afternoon M. Garnerin again aſcended with his balloon. The aſcenſion took place from Mr. Lord's cricket ground, in Mary-le-bone; M. Garnerin was accompanied by a Mr. Locker. The doors of the incloſure were opened between two and three o'clock; but it was not till half paſt four that the proceſs of inflating the immenſe vehicle, and the other neceſſary preparations, were completed. About this time the prince of Wales, with a party of the nobility, entered the ground, and was warmly greeted by the ſeveral ſpectators. Garnerin, after paying his reſpects to his royal highneſs, requeſted his companion in the voyage to take his ſeat in the car. The intrepid aeronaut ſhortly after followed, and all the different appendages being properly arranged and adjuſted, the balloon majeſtically aſcended, amid the plaudits of the ſpectators; with ſuch rapidity did the balloon aſcend, owing to the high and boiſterous ſtate of the wind, that in leſs than three minutes it became completely obſcured in the clouds, and was not afterward beheld by the populace, who at an early hour crowded every avenue leading to the ground. The weather was extremely unfavourable. The multitudes who ſurrounded the ground were greater perhaps than were ever before witneſſed on any ſimilar occaſion; and the ſpectators within the paling were of the firſt reſpectability. Some time previous to the aſcenſion, a part of the ſcaffolding erected for the accommodation of ſpectators gave way, by which near twenty perſons were ſeverely bruiſed. The aerial voyagers returned to town the ſame evening at half paſt nine, after a ſafe journey, having deſcended near Enfield, at the diſtance of fifteen miles from town. The balloon was brought back to town by the travellers, whom it had conveyed into the country.

JULY 7.

Yeſterday the livery of London aſſembled in Guildhall, to chooſe repreſentatives for the city in the enſuing parliament.

The lord-mayor appeared on the huſtings about one o'clock, and having declared that the livery were legally convoked, withdrew.

The ſheriffs were afterward ſworn to make a juſt return, and all the neceſſary formalities being completed, the meeting proceeded to buſineſs.

All the aldermen were, according to cuſtom, propoſed for election, though it was underſtood that of the whole, only ſir Watkin Lewes, alderman Curtis, alderman Anderſon, alderman Combe, and alderman Price, were candidates.

The town crier aſked whether there were any more candidates? Mr. P. Travers and Mr. R. Waithman were immediately propoſed.

The gentlemen nominated were then propoſed for election.

For ſir Watkin Lewes, alderman Combe, and Mr. Travers, the ſhow of hands was univerſal. For alderman Price, the ſhow was very general. For alderman Curtis, leſs. For alderman Anderſon, there were ſtill fewer hands held up. For Mr. Waithman and Mr. Luſhington, there were very few.

The ſheriffs then declared that the choice of the livery had fallen upon the following gentlemen:—Sir Watkin Lewes, Mr. alderman Combe, Mr. alderman Price, and Mr. Travers.

Theſe gentlemen thanked the livery for the honour conferred upon them.

A poll was then demanded for ſir John William Anderſon, and alderman Curtis.

Yeſterday morning, purſuant to official notice, the acting high bailiff of Weſtminſter, and the ſubordinate officers, attended on the huſtings, in front of Covent-garden church. Soon after, the reſpective candidates made their appearance. Mr. Fox firſt entered the huſtings; he was accompanied by lord John Townſhend, &c. Lord Gardner ſoon followed, attended by ſeveral naval officers. A third candidate, Mr. Graham, an auctioneer, had been ſome time previouſly upon the huſtings.

The uſual proclamation was then made reſpecting the candidates, and a ſhow of hands ordered.—That for Mr. Fox was nearly general.—For lord Gardner was nearly, but not quite ſo many.—And for Mr. Graham, the hands did not appear to be more than twenty or thirty.

A poll was then formally demanded by Mr. Graham.

JULY 9.

The Southwark election was yeſterday finally cloſed, when the numbers were,

For Mr. Thornton,	-	1607
Mr. Tierney,	-	1341
Sir T. Turton,	-	1183

when Mr. Thornton and Mr. Tierney were declared duely elected.

JULY 13.

The following letters have been iſſued from the war office:

Sir, Horſe Guards, July 6.

I have the honour to inform you, that

his majeſty has been graciouſly pleaſed to grant permiſſion to the ſeveral regiments of his army which ſerved during the late campaign in Egypt, to aſſume, and wear in their colours, a badge, as a diſtinguiſhed mark of his majeſty's royal approbation, and as a laſting memorial of the glory acquired to his majeſty's arms, by the zeal, diſcipline, and intrepidity of his troops, in that arduous and important campaign. His royal highneſs the commander in chief has directed me to make this communication to you, in order that the regiment under your command may avail itſelf of the honour hereby conferred by his majeſty; and I am commanded, at the ſame time, to appriſe you, that a pattern of the badge, approved by his majeſty, is lodged at the office of the comptrollers of army accounts, there to be had recourſe to, as circumſtances may require.

I have the honour to be, &c.

HARRY CALVERT, adjutant-general.

*** The badge is a Sphinx, with the word 'Egypt,' over it.

GENERAL ORDERS.

Horſe Guards, June 12.

His royal highneſs the commander in chief directs it to be made known to the army, that his majeſty has been graciouſly pleaſed to ſignify his royal pleaſure that every ſerjeant (whether of the cavalry, foot guards, or line) who has in the courſe of the late war, or may hereafter, become blind on ſervice, ſhall receive an allowance of one ſhilling and ſix per diem; every corporal, in the like circumſtances, one ſhilling and twopence per diem; and every drummer and private man, in the like circumſtances, one ſhilling a day, for the remainder of their lives.

It is the commander in chief's pleaſure, that his majeſty's gracious intention, above expreſſed, ſhall be communicated to the men, and inſerted in the orderly book of every regiment.

By order of his royal highneſs the commander in chief.

HARRY CALVERT, adjutant-general.

JULY 14.

Yeſterday the poll at Guildhall was opened at nine o'clock, as uſual, and continued open till three, when it was finally cloſed, and the numbers ſtood thus:

For Mr. alderman Combe,	-	3377
Mr. alderman Price,	-	3236
Mr. alderman Curtis,	-	2989
Sir J. W. Anderſon,	-	2387
Mr. Travers,	- -	1371
Sir Watkin Lewes,	-	652
Mr. Luſhington,	-	113

Yeſterday morning the candidates for the county of Middleſex, met at the huſtings in Brentford, when the uſual formalities being completed, Mr. Byng, Mr. Mainwaring, and ſir Francis Burdett were propoſed.

A ſhew of hands was then ordered for each of the candidates. Almoſt every hand ſeemed to held up for ſir Francis Burdett and Mr. Byng; but the number for Mr. Mainwaring was proportionally very few.

Mr. Burchall—'I am directed by the ſheriffs to declare that, in their opinion the choice of the electors of the county of Middleſex has fallen on ſir Francis Burdett and Mr. Byng.'

Mr. Mainwaring demanded a poll.

JULY 15.

Yeſterday the ſeſſions were opened at the Old Bailey before the lord mayor, judge Rooke, and juſtice Lawrence.

Yeſterday at the concluſion of the poll for Weſtminſter, the numbers were,

For Mr. Fox,	-	2673
Lord Gardner,	-	2434
Mr. Graham,	-	1691

Mr. Graham has this day declined, and the election is ended; Mr. Fox and lord Gardner will of courſe be the ſitting members.

JULY 16.

Yeſterday the ceremony of returning the members for the the city took place at Guildhall, when the ſheriffs declared the four following gentlemen duly elected, viz. Mr. alderman Combe, Mr. alderman Price, Mr. alderman Curtis, and alderman ſir J. W. Anderſon, bart.

JULY 19.

From Demarara newſpapers, received by the Siſters, Hamilton, which has juſt arrived in the Clyde, the following intereſting extract is made:

Camp, May 28.

Colonel Hiſlop has received by the laſt packet a letter from lord Hobart, one of his majeſty's principal ſecretaries of ſtate, of which the following copy he delays not in giving, for the information generally of thoſe to whom it applies.

(COPY)

Sir, Downing-ſtreet, April 2.

It being the intention of his majeſty that lands ſhould be granted at Trinidad, upon very favourable terms to ſuch Britiſh ſubjects as may be inclined to remove to that iſland with their negroes from the colonies which are ſhortly to be reſtored to the Batavian republic; I am to deſire that you will make this intention generally known

to the Britiſh ſubjects reſident in Demerara, and acquaint them that the ſpecific terms upon which ſuch grants are to be made, will very ſhortly be communicated to governor Picton, who will at the ſame time receive inſtructions for carrying the intentions of government into execution.

I have the honour to be, &c.

To colonel Heſlop, &c. HOBART.

JULY 21.

Yeſterday the ſeſſion ended at the Old Bailey, when the following capital convicts receive ſentence of death, viz. Joſeph Rogers, for coining; Henry Evans, for horſe-ſtealing; and Sarah Davis, for privately ſtealing. Jeremiah Emblin, to 14 years tranſportation. Twenty-nine to 7 years tranſportation. Three to two years impriſonment. Eight to twelve months impriſonment. Thirteen were ſentenced to ſix months impriſonment—and the remaining convicts adjudged to leſſer puniſhments—after which the ſeſſions were adjourned until the 15th of September.

Yeſterday, the lord-mayor held a court of alderman at Guildhall. Rich. Welch, eſq. citizen and glover, and James Alexander, eſq. citizen and butcher, elected ſheriffs on Midſummer-day laſt for the year enſuing, entered into bonds in the penalty of 1000l each, for the due performance of their office.—John William Gallabin and Samuel Marriott, were ſworn into the office of Bridgemaſters for the year enſuing.

July 23.

A ſerious riot took place laſt Monday ſe'nnight, at Dublin, on the celebration of the anniverſary of the battle of the Boyne and Aghrim. The ſtatue of king William III. in College Green, was ſuperbly decorated with appropriate colours, and ſeveral orange ſocieties paraded round College Green in the courſe of the day. Late in the evening, however, a diſpoſition to tumult was obſerved in the perſons collected in College Green. A guard was ſent for, but in the interval, three or four yeomen, in uniforms, who had paſſed along the ſtreet, were attacked by the mob, and beaten to the ground, while ſome gentlemen who interfered to preſerve them ſhared the ſame fate. Major Swan, who endeavoured to preſerve order, was alſo knocked down and cut, and the riot had aſſumed a moſt alarming appearance, when alderman Darley arrived with a party of the Caſtle guard, upon whoſe appearance the mob inſtantly diſperſed.

The Dublin Journal of the 17th inſt. ſpeaking of the riot, ſtates as follows:—'The life of an unfortunate perſon has already fallen its ſacrifice; and we can ſcarcely hope, when we obſerve the phrenzy of the populace, that he will have been the only victim. Before that evening, an attention was avowed by ſome of the loweſt of the rabble of celebrating, by bonfires and aſſemblages, the anniverſary of the French revolution (the 14th of July.) In furtherance of this deſign, the public fountains in thoſe parts of the town moſt inhabited by the deſcription we have mentioned, were decked with green boughs and green ribbons, and as the evening approached, preparations were made for bonfires. In Thomas-ſtreet, Francis-ſtreet, Back lane, and Kevin-ſtreet, thoſe bonfires attracted large crowds, and when a ſufficient number of perſons had collected, the moſt abominable and inflammatory ſpeeches were uttered, to excite an abhorrence to every perſon of real or reputed loyalty in the recollection of the orators: at length the multitude became inflamed to violence, and proceeded through the ſtreets denouncing vengeance againſt the objects of their ill-will. The few loyaliſts of the neighbourhood were ſurrounded in a houſe to which they had fled for ſafety, and the houſe itſelf attacked with ſhowers of ſtones; the natural conſequence was, an effort of reſiſtance on the part of thoſe attacked, in which a porter of the name of Morris, one of the crowd, was killed by the diſcharge of a piſtol.

July 24.

The emperor of Morocco has declared war againſt the United States. A notice to this effect has juſt been officially received by Mr. Erving, the American conſul, reſident in London, to the commanders of American veſſels. The ſhips of the united ſtates, bound to the Mediterranean, are directed to rendezvous in the Bay of Cadiz, where a convoy will be furniſhed them, from time to time, out of the ſquadron of commodore Morris, now upon that ſtation.

JULY 26.

ACCIDENT AT THE WEST INDIA DOCKS.

The following are the particulars of the very unfortunate and melancholy event that took place at Blackwall, on Thurſday evening, at the eaſtern entrance into the Weſt India docks.

The dock, now nearly ready to be opened, is an oblong ſquare, communicating with the river by a lock at each end, and extending acroſs the Iſle of Dogs.

The bottom of the dock, and of the lock leading into it, is about 20 feet under the ſurface of the river at high water. The whole of this dock, and the locks, were dug and built round with maſonry and brick work, before any communication was opened to the river; but as it is ultimately neceſſary to cut an opening, by which ſhips may arrive at the locks, piles were driven in, and a dyke formed, like thoſe dykes which keep the ſea from Holland, made of wood and earth, about eight or nine feet in thickneſs, which were built acroſs the mouth of the opening, that the workmen might follow their operations without being interrupted by the water.

The ſpace behind this dyke, and between it and a temporary bridge that croſſes the mouth of the lock, was the ſcene of the unfortunate accident. Men, to the number of 38, were employed in that ſpace to deepen it, and prepare for opening the dock in the courſe of a very ſhort time; and the ground on which they were working was about 20 feet under the level of the water. The bottom is of ſand, and the piles in the dyke had not been driven to a ſufficient depth; ſo that when the workmen got under the level of the lower points, the tide broke in a little before ſeven o'clock on Thurſday evening. The breach made was about 18 feet wide; and it appears that it did not break down, as dykes uſually do, at the top firſt, and gradually getting lower as waſhed away by the current, but the whole went at once from top to bottom, and the water ruſhed in, by a ſquare column of 20 feet by 18, or about 4000 cubic feet in a ſecond of time. The whole ſpace to be filled was about 250,000 cubic feet; ſo that it muſt have been three parts filled in one minute.

Mr. Bruff, the overſeer, was in the act of climbing up an inclined plane of wood, that ſerved for a ſort of ſand-box, with wheels for towing up the ſand and gravel, when the water floated the lower end of the boards, and inſtantly he fell. Five others, who were labourers, were among the ſufferers. The men killed were daſhed with great violence againſt a barricade of wooden plank that goes acroſs the mouth of the lock under the bridge, which fortunately reſiſted the ſhock, otherwiſe the whole dock would have been filled, with an impetuoſity that might have greatly injured the maſonry.

The news of the accident ſpread a moſt frightful alarm round the neighbourhood. Crowds flocked to the place, and great diſtreſs prevailed. It was a long time before a boat could come into the dam, the entrance of which was choaked up with piles and pieces of wood; the water inſide was alſo covered with wood, the wreck of the gates. Boats dragged for the dead bodies, and about ten o'clock four were found; at two o'clock on Friday morning a fifth was found. The body of Mr. Bruff's brother could not be recovered, though a reward of five guineas was held out to encourage the watermen in ſearching. They found, however, a piece of Mr. Bruff's coat, with his line and rule in the pocket; they found his hat alſo; and they found ſome other articles of wearing apparel. The ruſh of the water carried in a great part of the bank with it, into the coffer dam, which, in conſequence, was in many parts filled with mud, two or three feet deep.

The following advertiſement was iſſued by the dock company, which is accurate with reſpect to the damage done to the docks, but cannot be ſuppoſed accurate as to the number of perſons drowned, as five bodies were found, but the body of Mr. Bruff's brother had not been recovered, and the watermen continued ſearching long after the five were taken out.

'The accident of the exploſion of part of the coffer-dam, at Blackwall, the effect of which has been much exaggerated by public report, although attended with the loſs of five lives, and therefore a ſubject of extreme regret, has not produced any further injurious conſequences to the works of the Weſt India dock company at the Iſle of dogs, nor will it in the leaſt degree impede or delay their completion.—The directors of the Weſt India dock company have ordered an inquiry to be made into the ſituation of the families of the unfortunate ſufferers with a view to their relief.'

Of thoſe who were ſaved, many were ſeverely wounded, and have been carried to the hoſpital.

An inquiſition was held on Saturday, at two o'clock, at the ſign of the Fiſhing Smack, Poplar, before Edward Walters, eſq. his majeſty's coroner for the eaſtern department of Middleſex, on view of the bodies of Edward Pedlington, James Wood, Michael Fox, William Gaſcoigne, and John Butcher.

Mr. Thatcher, one of the contractors belonging to the docks, ſtated his knowledge of the perſons deceaſed. They were employed about the works as labourers—one of them, Pedlington, had worked for him many years. At the time the accident happened there were about forty people employed in removing the earth between the two coffer-dams. Mr. Bruff

who a body had not been found, acted as the foreman.—The dam was made with piles, and on the outſide, in the river Thames, there were ſome ballaſt lighters at work. It ſtruck him the dam was in a ſtate of danger, and he informed Mr. Bruff, the deceaſed, of his apprehenſions; he went away, and at ſeven o'clock news was brought him that the coffer-dam had blown up, and that ſeveral perſons had loſt their lives; he proceeded to the ſpot, and found the report confirmed.

William Kent, maſter-bailiff, ſaid, it was his buſineſs to attend to the works, as they were going on, and for that purpoſe he was conſtantly on the ſpot, but particularly at the coffer-dam. In the courſe of laſt week he was apprehenſive the works were dangerous, and that a great deal of injury might be done to the level. He accordingly thought it his duty to call a committee of the commiſſioners of ſewers, and had every part of the place inſpected. No order was made by the committee. Mr. Jeſſop and Mr. Walker, the ſurveyors, attended. They ſaid they would ſtake their exiſtence, or forfeit their lives, or words to that effect, if any thing diſagreeable happened: they were fully confident the works were perfectly ſafe. The commiſſioners yielded to their opinion, and departed, contenting themſelves only with deſiring him, the witneſs, to pay every poſſible attention to the place. It was between twelve and one o'clock on Thurſday noon when the committee ſat. The witneſs informed the commiſſioners he ſhould not leave Blackwall during the flowing of the tides, as, notwithſtanding the opinions of the ſurveyors, he ſtill entertained his ſuſpicions. About ten minutes before ſeven on the ſame day, the tide being nearly at its height, the witneſs was ſtanding by the crane-poſt, and was looking toward the ſouth coffer-dam, when he obſerved the head of one of the piles decline toward the river. He inſtantly called out to the people who were at work below, at the length of about thirty feet, exclaiming, 'For God's ſake come up, the coffer-dam is blown.' The people ran in all directions; the water ruſhed in with a dreadful noiſe, and daſhing againſt the gates, returned by the eaſtern wall, and ſwept away all who had not had time to get up. The baſon in an inſtant filled to the depth of 22 feet; ſome by the violence of the torrent, were forced againſt the piles, and jammed between them. He was perſuaded moſt of thoſe who were loſt had been driven to the corner end of the eaſtern wall, and in fact all the bodies that had been found were lying on that ſpot. The witneſs added, that all practicable aſſiſtance was afforded to prevent the loſs of the workmen, and he was ſurpriſed, conſidering how inſtantaneous the effect of the inundation was, that more lives had not been loſt.

The coroner thought it totally unneceſſary to occupy the time of the jury in the examination of any more evidence. It was evident that the loſs of the lives of the deceaſed could only be attributed to accident. The ſurveyors were not in the leaſt degree to blame. They had no doubt given that opinion which was prompted by their conception of their duty. Human nature was liable to error, and they, notwithſtanding their experience and profeſſional knowledge, had fatally erred in this inſtance. It was their misfortune, but not their fault. He did not ſee how the jury could return any other verdict than that of accidental death; at the ſame time it was not his province to decide;—if they entertained a different opinion, they were free to declare it.

The jury converſed ſome time among themſelves, and returned a verdict of accidental death as to all the perſons who were the objects of the inquiſition.

JULY 29.

This day, at the final cloſe of the poll for the county of Middleſex, the numbers were for

Mr. Byng - -	3848
Sir Francis Burdett -	3207
Mr. Mainwaring -	2936

whereupon the ſheriffs declared Mr. Byng and ſir Francis Burdett duly elected.

SUMMER CIRCUITS.

NORTHERN—Lord Ellenborough, and Mr. juſtice Chambre.

Norfolk—Lord Alvanley, and Mr. juſtice Groſe.

Home—Lord chief baron Macdonald, and Mr. baron Hotham.

Midland—Mr. juſtice Heath, and Mr. baron Thomſon.

Weſtern—Mr. juſtice Rooke, and Mr. baron Graham.

Oxford—Mr. juſtice Lawrence, and Mr. juſtice Le Blanche.

BIRTH.

VISCOUNTESS Belgrave, at Milbank-houſe, a daughter.

MARRIAGES.

ROBERT Sheridan, jun. eſq. of Gower-ſtreet, to miſs Monro, only daughter of the late Robert Monro, eſq. of Madras.

Rev. James Simpkinſon, rector of St. Peter-le-Poor, to miſs Vaux, eſq. of Auſtin-friars.

Hon. lord Henry Stuart, third ſon of the marquis of Bute, to the right hon. lady Gertrude Villiers, daughter and ſole heireſs of the late earl of Grandiſon.

Henry Sheppard, eſq. of Frome, to miſs Winter, daughter of T. B. Winter, eſq.

A. B. Coutts Trotter, eſq. of Berner's-ſtreet, to miſs Margaret Gordon, fourth daughter of the late hon. Alexander Gordon, lord Rockville.

Middleton Onſlow, eſq. to miſs Matilda Boddington, daughter of Thomas Boddington, eſq. of Clapton.

Joſeph Wharam, eſq. of Bayſwater, to miſs Suſan Wegg, daughter of the late Edmund Ruſh Wegg, eſq.

Edward Vaux, jun. eſq. of Auſtin-friars, to miſs Eade, daughter of Jonathan Eade, eſq. of Stoke Newington.

Right hon. lord Dunally, to miſs Trant, niece to the late earl of Clare.

J. H. Everett, eſq. eldeſt ſon of T. Everett, eſq. M. P. of Bedford-ſquare, to miſs Cooke, eldeſt daughter of the late major Cooke.

DEATHS.

THOMAS Butterworth Bayley, eſq. of Hope, near Mancheſter.

Mrs. Sarah Albert, of Homerton, aged 97 years.

Dr. Marley, biſhop of Waterford.

William Feilleteau, eſq. F. A. S. aged 70 years.

Richard Thomas Bleamire, eſq. of Penrith, aged 99 years.

John Rix, eſq. accountant-general in the Exciſe-office.

Mrs. Chriſtian Amiel, of Egham, aged 84 years.

Lieutenant general William Spry.

Lieutenant-colonel Fitzgerald.

Hon. Mrs. Lewis, ſiſter to lord Bradford.

William Douglas, eſq. of the Eaſt India company ſervice at Bengal.

Mr. Angelo, at Eton, aged 86 years.

Right hon. Iſaac Barre, clerk of the pells.

Counteſs of Aldborough.

William Robertſon, eſq. M. D.

Lady of the rev. Thomas Heathcote, rector of Stone, in Kent.

Dr. Parker, rector of St. James', Weſtminſter.

Captain Curtis, of the navy, ſon of admiral ſir Roger Curtis.

Admiral Dumareſq, aged 73 years.

Dowager lady viſcounteſs Cullen.

PROMOTIONS.

RIGHT hon. Henry Addington, Charles Small Pybus, eſq. lord Thynne, Nathaniel Bond, and John Heley Addington, eſqrs. —commiſſioners for treaſurer of the exchequer.

Viſcount Caſtlereagh, duke of Portland, lord Hawkeſbury, lord Hobart, lord Pelham, right hon. Henry Addington, duke of Montroſe, lord Glenbervie, right hon. William Dundas, right hon. Thomas Wallace, baron Arden, and Edward Golding, eſq.—commiſſioners for the affairs of India.

Hon. William Welleſley Pole—clerk of the ordnance.

Francis Drake, eſq.—envoy extraordinary and miniſter plenipotentiary to the court of the elector Palatine.

Duke of Northumberland—Cuſtos Rotulorum of the county of Northumberland and Newcaſtle-upon-Tyne.

Evan Nepean, eſq.—a baronet.

Lieutenant-colonel Edward Baker Littlehales—a baronet.

Archibald Dickſon, eſq. admiral of the blue—a baronet.

Right hon. Charles George baron Arden, of Ireland—to be a baron of the United Kingdom by the ſtyle of baron Arden, in the county of Warwick.

Right hon. John baron Sheffield, of Ireland—to be a baron of the United Kingdom, by the ſtyle of baron Sheffield, of Sheffield, in the county of York.

BANKRUPTS. From the GAZETTE.

JUNE 26.

J. WHEATLEY, Mark-lane, corn-factor.

T. Faulkner, Mancheſter, W. Faulkner, and J. Gibſon, Queen-ſtreet, Cheapſide, warehouſemen.

R. Cox, Kennett-wharf, Upper Thames-ſtreet, rag-merchant.

W. Smith, Cirenceſter, Glouceſterſhire, linen-draper.

T. Rocheſter, Canterbury-row, Newington, coal-merchant.

J. Roſs the elder, G. Roſs, T. Thompſon, and J. Allſtham, Piccadilly, dealers in wine.

T. Hurrell, Conduit-ſtreet, Hanover-ſquare, taylor.

JUNE 29.

T. S. Langford, Cheſter, upholſterer.

J. Cottingham, Liverpool, merchant.

T. Syers, Mancheſter, ſtationer.

W. W. Parker, Church-ſtreet, Southwark, lighterman.

A. Haſſam, Weſthoughton, Lancaſhire, ſhopkeeper.
J. Milner, Yarmouth, druggiſt.
J. Tatlock, Finch-lane, broker.

JULY 3.

J. Freeman, Fleet-ſtreet, hat-manufacturer.
E. Brewer, Cricklade, Wilts, money-ſcrivener.
J. White, and R. Styring, Sheffield, ſilver-platers.
B. Wilſon, Thornhill, Yorkſhire, lime-burner.
H. Lloyd, Kington, Hereford, baker.
J. Dancaſter, New Alresford, Southampton, grocer.
M. Campbell, and W. Teaſdale, Manchester, grocers.
C. Stainbank, Old Bond-ſtreet, print-ſeller.
J. Braint, Monkgate, Yorkſhire, butter-factor.
G. Ball, Launceſton, Cornwall, dealer in ſpirits.
J. Turner, Kingſton-upon-Thames, Surry, maltſter.

JULY 6.

H. Duffin, and H. Duffin, Stratford-upon-Avon, linen-drapers.
J. Hemwood, Canterbury, vintner.
J. Halfhide the elder, J. Halfhide the younger, and E. Halfhide, Merton, in Surry, calico-printers.
J. Bowen, Swanſea, mariner.
A. Coulthard, Cumberland, innkeeper.

JULY 10.

G. Smith, Barnſley, Yorkſhire, grocer.
W. Bulfield, Lancaſter, ſhopkeeper.
W. Chilcott, Lamb-ſtreet, Spitalfields, plumber.
J. James, Hatton-garden, dealer.
W. Bonſer, Red-lion-ſtreet, Spitalfields, ſilk-weaver.
P. Hope, Liverpool, merchant.
J. Barratt, Wakefield, gardener.
C. Colliſhaw, Wych-ſtreet, St. Clement Danes, cabinet-maker.
J. Yeates, Portſmouth, coal-merchant.
T. Banks, Sedgley, Staffordſhire, carpenter.
W. Jenkins, Briſtol, broker.
T. Carter the younger, Waltham, Eſſex, corn-chandler.

JULY 14.

J. Parſloe, Norfolk, bookſeller.
J. Formby, Newburgh, in Lancaſhire, blackſmith.
W. Longfellow, Horſeforth, Yorkſhire, clothier.
J. Sunderland, Sandall Magna, Yorkſhire, corn-dealer.
C. Forbes, Chicheſter-rents, Chancery-lane, baker.
T. Lambert, Weſt Grinſtead, Suſſex, ſhopkeeper.

JULY 17.

W. Biſhop, Yealand Conyers, Lancaſhire, and J. J. Biſhop, Leighton-hall, in Lancaſhire, merchants.
W. Fowler, Kingſton-upon-Hull, ſhopkeeper.
R. James, and W. Johnſton, St Swithin's-lane, merchants.
Ann Lancheſter, Sackville-ſtreet, Piccadilly, dealer.
T. Woodcroft, and J. Woodcroft, of Sheffield Moor, Yorkſhire, comb-manufacturers.
A. Fulton, Clapham, Surry, coal-merchant.
J. T. Criſp, Banbury, in Oxfordſhire, wholeſale clothier.
J. Dodgſon, Newcaſtle-upon-Tyne, ſpirit-merchant.

JULY 20.

S. Bradley the younger, Leiceſter, grocer.
R. Panter, and G. Panter, Heyrod, in Lancaſhire, dealers.
S. Lucas the younger, Birmingham, plater.
J. Weſtlake, Hampreſton, Dorſetſhire, maltſter.
W. Fiſher, Cambridge, woollen-draper.

JULY 24.

J. Houlton, Birmingham, baker.
T. Richardſon, Manchester, merchant.
T. Whitly, Halifax, Yorkſhire, merchant.
W. Statham, Birmingham, butcher.
J. Procter the elder, Lancaſter, common brewer.
J. Procter the younger, Lancaſter, merchant.
T. Jackſon, Manchester, ſilk-manufacturer.

NEW PUBLICATIONS.

PLAYFAIR's Illuſtrations of the Huttonian Theory of the Earth, 8vo, 10s.

Lady Geraldine Beaufort, 3 vol. 12mo, 12s.

Reynier's State of Egypt, after the Battle of Heliopolis, 8vo, 7s 6d.

Travels in the Crimea; a Hiſtory of the Embaſſy from Peterſburg to Conſtantinople, 1793, 8vo, 7s 6d.

Jones' Bardic Muſeum of Primitive Britiſh Literature, folio, 1l 5s.

Three Diſcourſes, on Books, Study, and Literature, ſmall 8vo, 4s.

Farmer's Boy, a Novel, 4 vol. 12mo, 26s.

Miralba, Chief of Banditti, 2 vol. 12mo, 8s.

Darling's Poetical Verſion of the Goſpels, 4to, 12s.

Fry's (Caroline) Hiſtory of England, in Verſe, 12mo, 6s.

Lady of the Caye, 3 vol. 12mo, 12s.

Jay's Sermons, 1vo, 8s.

Whitaker's Commentary on the Revelation of St. John, 8vo, 8s.

Rural Recreations in Gardening, &c. 2 vol. 8vo, 1l 1s.

Lyſons' Roman Antiquities at Bath, folio, 3l 13s 6d.

Coates' Hiſtory and Antiquities of Reading, royal 4to, 1l 11s 6d.

Man's (Henry) Miſcellaneous Works, 2 vol. 8vo.

Watts' (Suſanna) Poems, and Tranſlations, 8vo, 5s.

Lavater's Phyſiognomical Sketches, with Explanations, folio, 2l 12s 6d.

Von Martens' Law of Nations, by Cobbett, 8vo, 10s 6d.

Smith's Modern Geography, with Maps, &c. ſmall 4to, 18s, half bound.

Sayers' New Mode of conducting Corn Markets, 2s 6d.

Niſbett's Edinburgh School of Medicine, 4 vol. 12mo, 1l 8s.

Drummond's Verſes, Social and Domeſtic, 12mo, 7s.

Agneſi's (Maria) Analytical Inſtitutions, 2 vol. 4to, 2l 2s.

Who's the Murderer, 4 vol. 12mo, 18s.

Tomlins' Rules of Evidence before Election Committees, 8vo, 4s.

Pfaff's Treatiſe on Brown's Syſtem of Medicine, 2s 6d.

Hermit of the Alps, 18mo, 2s.

Willyams' Voyage up the Mediterranean, 1798, 4to, 3l 13s 6d.

New Itinerary of France, 8vo, 6s.

Mavor's Hiſtory of the Roman Empire, 3 vol. royal 18mo, 15s.

Stack's Introduction to Chymiſtry, 8vo, 7s.

M'Cringer's Treatiſe on Modern Education, 4to, 1l 1s.

Elrington's Sermons, at Donnellan's Lecture, 8vo, 6s.

Wife and the Miſtreſs, 4 vol. 12mo, 18s.

Noble Wanderers, 2 vol. 12mo, 8s.

Hatred, or Vindictive Father, 3 vol. 12mo, 12s.

Iſabel, or Orphan of Valdarno, 3 vol. 12mo, 13s 6d.

Hunter's (Mrs. John) Poems, 8vo, 5s.

AVERAGE PRICES of CORN,

July 17, 1802.

By the Wincheſter Quarter of 8 Buſhels.

Inland Counties.

	Wheat.		Rye.		Barley.		Oats.	
	s.	d.	s.	d.	s.	d.	s.	d.
Middleſex	70	10	34	6	31	10	22	9
Surry	72	6	34	0	33	8	22	8
Hertford	62	4	38	6	31	3	21	4
Bedford	64	3	41	6	31	9	20	4
Huntingdon	63	5	—	—	31	6	16	4
Northampton	65	6	—	—	29	6	17	6
Rutland	68	9	—	—	31	0	18	0
Leiceſter	67	6	—	—	32	3	18	0
Nottingham	72	4	46	0	36	0	21	0
Derby	73	8	—	—	39	6	19	10
Stafford	73	4	—	—	34	4	20	10
Salop	73	0	52	2	38	8	23	6
Hereford	64	2	38	4	32	6	23	5
Worceſter	69	2	39	0	34	1	27	2
Warwick	70	9	—	—	33	4	22	10
Wilts	63	4	—	—	26	8	21	0
Berks	67	2	—	—	28	5	24	10
Oxford	64	10	—	—	28	9	20	9
Bucks	66	6	—	—	31	0	24	0
Brecon	64	0	—	—	—	—	16	10
Montgomery	65	3	43	2	30	4	16	0
Radnor	65	8	—	—	32	0	20	6

Maritime Counties.

Eſſex	70	4	31	0	32	3	24	0
Kent	67	6	—	—	30	3	23	8
Suſſex	66	1	—	—	27	0	23	10
Suffolk	65	6	30	0	29	5	19	5
Cambridge	67	6	31	10	28	9	14	8
Norfolk	66	7	—	—	27	0	18	1
Lincoln	69	1	—	—	—	—	16	2
York	68	3	44	8	—	—	16	6
Durham	68	1	—	—	38	0	20	9
Northumberland	64	2	44	0	27	5	18	5
Cumberland	74	2	51	9	32	8	18	8
Weſtmorland	80	7	55	4	30	2	20	1
Lancaſter	75	2	—	—	—	—	18	7
Cheſter	71	3	—	—	—	—	21	2
Flint	None		bro't		forSale		—	—
Denbigh	75	0	—	—	39	8	18	4
Angleſea	None		bro't		forSale		—	—
Carnarvon	70	0	42	0	30	8	16	0
Merioneth	70	2	48	0	36	8	19	0
Cardigan	55	6	—	—	24	0	11	7
Pembroke	50	10	—	—	23	3	—	—
Carmarthen	55	0	—	—	24	0	13	3
Glamorgan	64	1	—	—	28	8	17	9
Glouceſter	65	8	—	—	27	4	23	2
Somerſet	64	11	—	—	27	0	—	—
Monmouth	66	2	—	—	28	10	—	—
Devon	62	4	—	—	22	8	20	0
Cornwall	62	2	—	—	24	2	15	6
Dorſet	65	10	—	—	22	0	25	2
Hants	64	3	—	—	26	7	20	11

Average of England and Wales.

Per Quarter	67	1	41	5	30	4	19	10

July 29—Peck Loaf, 3s 5d.

METEOROLOGICAL JOURNAL, June 1802.

D.	H	Baro.	T.out	T.in.	H.	C	Wind.	Weather, &c. Rain 2,01
1	7	30,07	47	54	60	5	NE 1	gentle rain. fair: leſs cloudy
	2	30,15	55	55,5	53	4	NNE 1	. fine eve. cloudleſs
2	7	30,27	46,5	52	55	0	NE 1	hazy. cloudy
	2	30,27	57,5	55	55	5	E 2	leſs cloudy. cloudy night: ſhowers. fine
3	7	30,05	55,5	56	60	3	E 1	. gentle rain. fine
	2	29,94	59	61,5	53	4	ESE 1	. little thunder and much rain. leſs cloudy
4	7	29,72	60	61	62	5	SSW 1	. fine [night
	2	29,81	67,5	62,5	51	4	SW 2	. fine. cloudy eve. rain at times
5	7	29,75	60	61,5	60	5	SSW 1	. little rain but leſs cloudy at times
	2	29,73	64,5	62,5	53	5	SW 2	. chiefly fine. little wet at eve
6	7	29,85	57	60	60	5	SSW 2	. little wet but fine at times: ſhowers
	2	29,86	60	62	58	4	SW 3	. leſs wind and rain at times
7	7	29,90	57	58,5	60	5	SSW 1	chiefly gentle rain
	2	29,82	58,5	60,5	60	5	SSW 1	much rain
8	7	29,73	54	58,5	69	4	WNW 1	chiefly fine: thunder ſhower. fine
	2	29,83	62	61	54	3	W 1	. cloudy. thunder and much rain. fine eve
9	7	29,89	53,5	57,5	59	3	S 1	. more wind and chiefly gentle rain
	2	29,85	59,5	61	58	4	SSW 3	. chiefly drizzling and more wind at night
10	7	29,77	58	59,5	62	5	SSW 3	. little rain at times
	2	29,80	59,5	61	61	5	SSW 3	. chiefly cloudy and drizzly. leſs wind: fine
11	7	29,84	56	58,5	59	3	SW 1	
	2	29,88	65	61	46	3	SW 2	
12	7	29,98	57	59	58	3	SW 2	. little rain at times: diſtant thunder
	2	30,02	63,5	61,5	51	4	SW 3	. fine and leſs wind: rain. fine
13	7	30,10	56	60	59	3	WSW 1	. cloudy at times
	2	30,11	65	62	50	3	WSW 1	. little wet at times
14	7	30,25	54,5	58	53	1	W 1	. rather cloudy
	2	30,29	65	62	45	3	WNW 1	
15	7	30,31	55,5	60	54	5	WNW 1	. fine
F	2	30,33	68	63	43	2	W 1	hazy. cloudy: fine
16	7	30,31	60,5	63	56	2	W 1	
	2	30,30	73,5	66,5	48	3	W 1	: cloudy
17	7	30,20	69,5	64,5	52	5	NW 1	. leſs cloudy at times
	2	30,22	65	65	48	5	N 1	. leſs cloudy: fine
18	7	30,31	55	60,5	50	1	NE 1	
	2	30,35	67	63,5	44	3	NNE 1	
19	7	30,29	55	58	51	1	N 1	hazy. windy w and cloudy
	2	30,23	68,5	63	45	5	WNW 1	. leſs cloudy at times
20	7	30,29	59,5	60,5	51	5	WNW 0	. fine
	2	30,35	71	65	44	3	N 1	
21	7	30,51	55,5	60	53	1	E 1	hazy
	2	30,50	68	63,5	43	1	E 1	
22	7	30,34	55	59	51	1	E 0	hazy. wind WNW
	2	30,25	71,5	65	44	1	WNW 1	. cloudy. little wet at eve. fine
23	7	30,12	57,5	62	45	1	NW 1	: cloudy
	2	30,05	64	64	40	5	WNW 2	. fine. little wet at eve. fine
24	7	30,14	52	58,5	47	1	NW 2	
	2	30,20	62,5	61	40	4	WNW 2	. clear night
25	7	30,20	51	58	46	5	W 1	. leſs cloudy at times
	2	30,22	63,5	61,5	45	5	W 1	: fine
26	7	30,14	58,5	61	48	2	SW 1	
	2	30,03	69	64	41	3	S 2	. clear night: cloudy
27	7	29,82	57	60,5	53	5	SW 1	. little wet at times: gentle rain
	2	29,77	66	63	54	5	SW 2	drizzling. leſs cloudy. rainy night: fair
28	7	29,71	58,5	62	58	4	SW 1	. more wind and little rain at times
	2	29,63	65	64,5	48	5	SW 3	. ſhower. fine
29	7	29,62	54,5	60	53	3	W 2	. ſhowers
	2	29,68	65	61,5	50	3	W 2	. ſhowers: clear
30	7	29,91	51,5	57,5	53	1	W 1	hazy. little cloudy at times
N	2	29,89	61	60	45	3	W 1	hazy. cloudleſs night: cloudy

PRICES of STOCKS, from JUNE 28 to JULY 28, 1802, both inclusive.

By ANTHONY CLARKE, Stockbroker, No. 29, Princes-Street, Lothbury.

Days	Bank Stock.	3 per C. reduced.	3 per C. consols.	4 per C. Anns.	Old 5 per C. Conf. shut.	New 5 per C. Anns.	Long Anns.	Short Anns.	India Stock. shut.	Imperial 3 per C.	Imperial Ann.	Exch. Bills 3d per day.	Exch. Bills 3½d p. day.	English Lot. Tic.
28	189 ½	74 ⅝	75⅝ ½	90⅜ ⅛		105 ⅜	21 ⅛			73 ⅛		4s dis.	2s. pr.	
29		74	75½ ⅝			105 ⅜						4	par	
30	189 ½	74 ⅛	75½	90 ⅛		105 ½	21 ⅛	5		72 ⅞	12 ⅛	4	3s. pr.	
1	188	73 ⅞	75½	89 ⅞		104 ½	20 ⅞			72 ⅞	12 ⅛	3	4	
2	189	74 ⅛	75⅝ ¾	90		105 ⅛	21 ¼			72 ⅞	12 ¼	3	3	
3		74 ⅛	75⅝ ¾	90 ⅛		105 ⅛	21			72 ⅞	12 ¼	3	2	
5		74 ⅛	75⅝ ¾	89 ⅞		105 ⅛	21			72 ½		4	par	
6	189 ¼	74 ⅛	75⅝ ⅞	90		105 ⅛	21				12 ¼	5	1s pr.	
7		74 ⅛	76⅛ 76	90		105 ⅛	21 ⅛			73 ⅛			2	
8		74 ⅛	75⅞ 76⅜	90		105 ⅛	21			72 ⅝	12 ¼	4	3	
9	190 ½	74 ⅛	75⅝ ⅞	90 ⅛		105 ⅛	21 ⅛	5		73		4	2	
10		74 ⅛	76 75⅝	90		105 ⅛	21 ⅛					4	4	
12		74 ⅛	76⅛ 75⅞	90		105 ⅛	21 ⅛	5		72 ⅞		2	5	
13	190 ½	74 ⅛	75½ ⅛	90 ⅛		105 ⅛	21	5		72 ⅞		2	5	
14		74 ⅛	75⅝ ⅛	90 ⅛		105 ⅛	21	5		72 ⅞		3	5	
15		74 ⅛	74⅞ 75⅝	90		105 ⅛	21			72 ⅞	12 ⅛	3	4	
16	190	74 ⅛	75 75⅝	90 ⅛		105 ⅛	21 ⅛	5		72 ⅞	12 ⅛	3	4	
17		74 ⅛	75⅛ ¼	90 ⅛		105 ⅛	21	5		72 ⅞	12 ⅛	3	7	
19		74 ⅛	75⅛ ¼	90 ⅛		105 ⅛	21	5		72 ⅞		par	5	17 12 6
20	190	74 ⅛	75⅜ 74½	90 ⅛		105 ⅛	21	5		72 ⅞	12 ⅛	1s dis.	6	17 13 0
21		73 ⅞	74¼ 73¾	89 ¼		105	20 ⅞	5		72 ⅞	12 ⅛	2	6	
22		73 ⅞	74⅛ 73⅜	89 ¼		105	20 ⅞	5		72 ⅞	12 ⅛		4	
23		73 ⅞	72⅝ 74	90		105 ⅝	20 ⅞			72 ⅞	12 ⅛	5	3	
24		72 ⅞	72⅛ 71¼	89		104 ⅝	20 ⅞	5	210			3	4	
26		72 ⅞	71⅛ 72	88 ⅝		103 ⅞	20 ⅞	5		70 ½		3	5	
27	180	72 ⅛	71⅛ 70⅝	88 ½		103 ⅞	20 ⅛		210	69 ¾	12	3	6	
28		71 ½	70⅛ 71	88 ½		103 ⅞	20 ⅛	5		70				

☞ In the 3 per Cent. consols. the highest and lowest Price of each Day is given; in every other Article the highest Price only, the Long, Short, and Imperial Annuities excepted, which are given within a sixteenth of the highest Price. In the different Funds that are shut, the Prices are given with the Dividend till the Days of Opening.